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ABSTRACT

The 2000 Campus Computing Survey, the 11th such survey, was sent to the chief academic officer at 1,176 two-year and four-year colleges and universities across the United States. By October 2000, 506 responses had been received, a response rate of 43%. New data reveal that the growing demand for technology talent across all sectors of the U.S. economy poses significant staffing challenges for U.S. colleges and universities. Respondents placed a high priority on personnel issues, and the survey data highlighted the gap in user support policies and services across all types of colleges and between the technology dependent/technology intensive campus and corporate communities. The survey data highlight the continuing challenge of information technology planning in higher education. Data suggest that there are gains in campus efforts to anticipate and plan for an array of critical information technology issues, but a careful look suggests that many of the plans may not be adequate. Overall there is more technology in the classroom, with 59.5% of all college courses using electronic mail, and 42.6% of courses using Internet-based resources. Almost one-third of college courses now have a Web page, and almost one-quarter of faculty members now have a personal Web page not linked to a specific class or course. Many more institutions now offer services on their campus Web site, as illustrated by the fact that 75.5% of the institutions participating in the survey provide online undergraduate applications. Two new survey items show great variations in campus police and practices on the issue of off-campus Internet access (ISP services) for faculty and students. Roughly two-thirds of public and private universities provide free ISP services for their students, but more than four-fifths of community colleges, roughly three-fifths of private four-year colleges, and almost half of public four-year colleges provide no ISP services for their students. Appendixes describes the methodology, contain the questionnaire, and list participating institutions. (Contains 13 figures and 19 tables.) (SLD)

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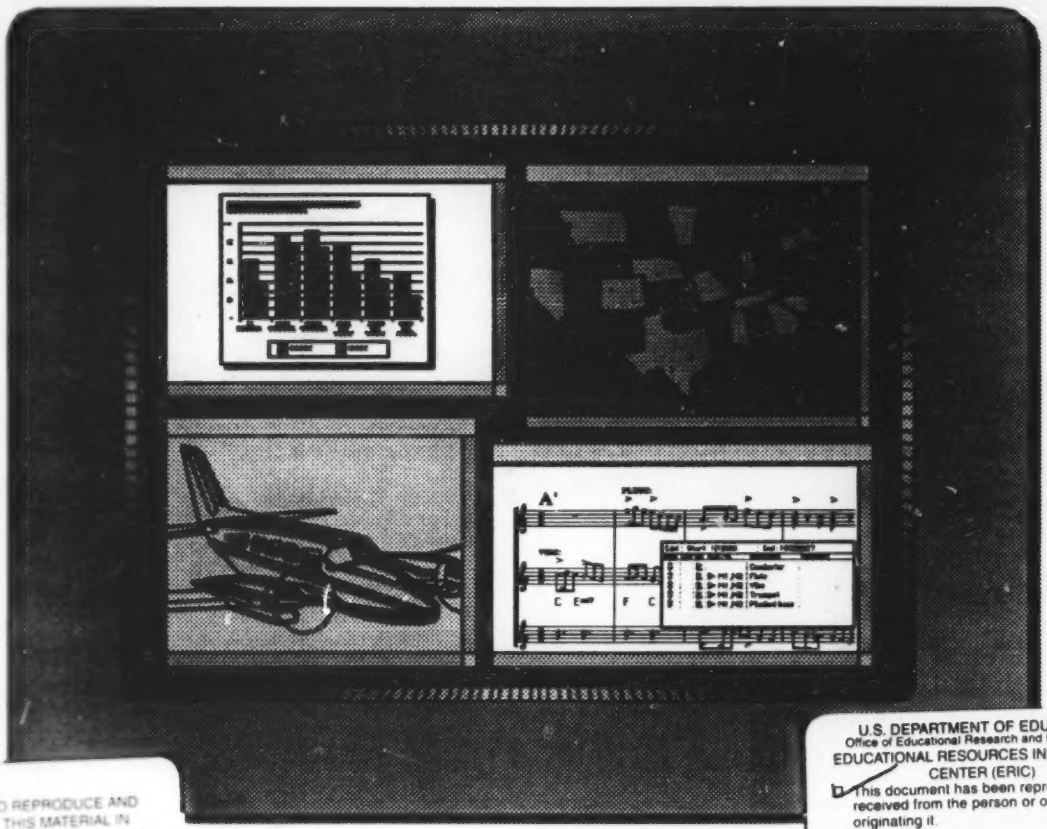
The 11th National Survey of Computing and Information Technology in American Higher Education



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The Campus Computing Project

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CAMPUS COMPUTING 2000

The 11th National Survey of Computing and Information Technology in American Higher Education

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March, 2001

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THE CAMPUS COMPUTING PROJECT

Begun in 1990, the Campus Computing Project is the largest continuing study of the role of computers and information technology in American higher education.

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CAMPUS COMPUTING, 2000

The 2000 National Survey of Computing and Information Technology in American Higher Education

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CAMPUS COMPUTING, 2000

The 2000 National Survey of Computing and Information Technology in American Higher Education

The Campus Computing Survey, now in its 11th year, is the largest continuing study of the role of computing and information technology in American higher education. The 2000 Campus Computing Survey was conducted during summer, 2000.[1] The survey results presented here summarize data from more than 500 two- and four-year public and private colleges and universities across the United States.[2]

The annual Campus Computing Survey focuses primarily on *academic computing*, i.e., the use of computing and information technology resources to support and enhance instruction and scholarship. The survey does not specifically address the role of computing and information technology as a resource for academic administration (e.g., budgeting, registration, financial management, or student records). The survey respondents, typically the chief academic computing or information technology officers at their institutions, are individuals specifically responsible for and knowledgeable about the current direction of technology planning, policy, and implementation efforts on their campuses.

The 2000 questionnaire was mailed in June, 2000 to the chief academic computing officer at 1,176 two- and four-year colleges and universities across the United States. Where it was not possible to identify a specific individual with a senior academic computing title, the questionnaire was sent to the senior academic officer. A total of 506 surveys were received by October, 2000, yielding a 43 percent response rate. (Additional information about the survey methodology is provided in Appendix A.)

The 2000 Survey Results

New data from the 2000 Campus Computing Survey reveal that the growing demand for technology talent across all sectors of the American economy poses significant staffing challenges for US colleges and universities. Campus information technology (IT) officials place "retaining current IT personnel given off-campus competition" and "helping IT personnel stay current with new technologies" at the top of the list of 27 strategic, financial, and personnel issues confronting their institutions over the next two-three years.

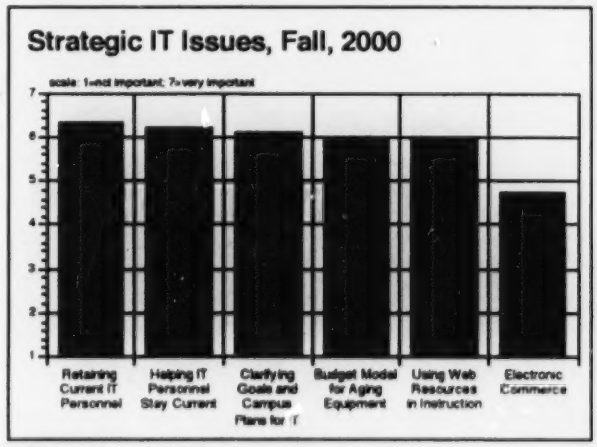

Figure 1
Key Strategic Issues

The high priority respondents assign to personnel issues in these data confirm that many of the key IT challenges in higher education really involve people more than products. Even with the much-discussed demise of the "dot.coms" in late 2000 and early 2001, the sustained demand for individuals with technical talent across all sectors of the US economy means that campus IT personnel often can "walk across the street" and easily increase their income by

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[1]The 2000 National Survey of Desktop Computing in Higher Education was supported, in part, by grants from the following sponsors: Apple Computer, Blackboard, Cisco Systems, Collegis, Compaq Computer Corp., Converge Magazine, Coursemetric.com, Dell Computer, eCollege.com, Docent, EDUCAUSE, eduprise.com, Follett Higher Education Group, Gateway Computer, Harcourt College Publishers, Hewlett-Packard Company, Houghton Mifflin Company, HorizonLive IBM Higher Education, Jenzabar-CARS, KPMG Peat Marwick, Lotus Development Corp., Macromedia, Microsoft Corp., National Education Association, Nortel Networks, Pearson Education, PeopleSoft, SallieMae, SCT Corp., Software Industry & Information Assoc., Sun Microsystems, Symantec Corp., Toshiba, WebCT and Xanedu.com.

[2]More than 30 private two-year colleges were included in the survey mailing. However, the low response rate from this group should not be viewed as being representative of the larger population of more than 600 private, degree-granting, two-year colleges in the United States.

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30 or 50 percent or more. Indeed, these data suggest that the education community — both higher education and K-12 — is at great risk of losing its technology talent to the corporate sector.

The 2000 survey data also confirm that staffing issues affect both user support initiatives and campus efforts to assist the instructional integration of technology across all sectors of higher education. Even though institutions spend a large portion of their IT budgets on personnel, colleges and universities remain significantly understaffed in the area of user support. Moreover, the survey data actually understate the level of the user support problem in higher education because the ratios presented in Figure 2 are based only on student headcount enrollments and do not include faculty, administrators, and staff – groups that also present significant user support requirements.

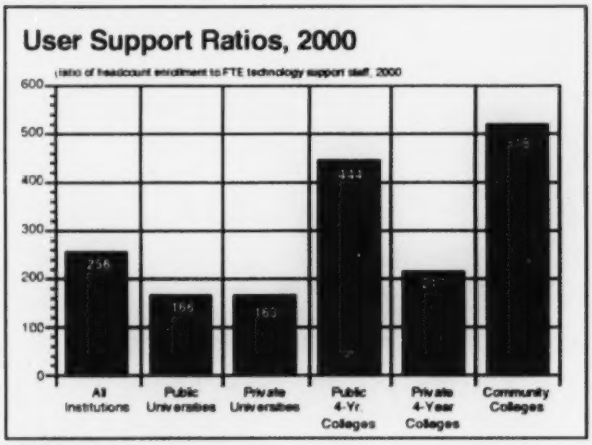

Figure 2
User Support Ratios

The survey data presented in Figure 2 highlight the gap in user support policies and services across all types of colleges and between the technology dependent/technology intensive campus and corporate communities. For example, the widely cited user support guidelines developed by The Gartner Group (www.gartnergroup.com), an IT industry research and consulting organization, generally recommend one IT support person for every 50-75 users. In contrast, the best user support ratios, found in private universities, are roughly twice the level recommended by The Gartner Group; in community colleges the ratios run almost ten times the recommended Gartner Group numbers. And as noted above, the numbers shown in Figure 2 understate the level of the user support problem as these data are based solely on student headcount enrollments and do not include other campus personnel such as faculty, staff, and administrators.

There is little doubt that user support issues are closely linked to campus efforts to bring technology into the instructional experience. For the third consecutive year campus officials identified "assisting faculty efforts to integrate information technology into instruction" as the single most important IT confronting their campuses. Fully two-fifths (40.5 percent) of the respondents participating in the 2000 Campus Computing Survey selected "instructional integration" from a list of eight IT issues as the leading IT challenge for their institutions over the next two-three years, up from 39.0 percent last year, 33.2 percent in 1998 and 29.6 percent in 1997.

While the data reflect some differences by campus type, the overall pattern is consistent across all sectors: instructional integration and user support are the two top priorities among public and private four-year colleges and universities (Figure 3). For community colleges, instructional integration stands out as the clear priority, while user support, financing the replacement of aging equipment, and distance learning initiatives are essentially tied for second. Across all sectors, the other options on this survey item — moving toward wireless campus networks, providing student portal services, integrating eCommerce into campus services, and integrating academic and administrative computing units — received very low responses.

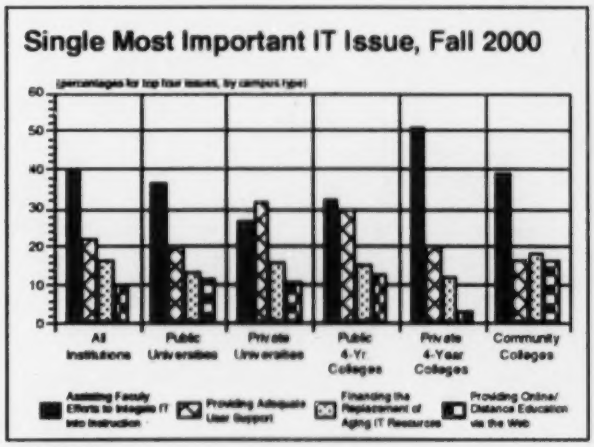

Figure 3
Single Most Important IT Issue, Fall 2000

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Technology Planning Issues

The 2000 data also highlight the continuing challenge of IT planning. Two-thirds (64.9 percent) of the campus officials participating in the 2000 Campus Computing Survey report that their institution has a strategic plan for information technology, up from 61.0 percent in 1999 and just 48.0 percent in 1998.

At one level, these numbers suggest important and impressive gains in campus efforts to anticipate and to plan for a wide array of critical information technology issues. However, the survey data suggest that many of these plans may be shallow.

Indeed, probe just a bit below the surface and it is clear that many of the institutions that claim to have a strategic plan for information technology frequently do not have plans for key components of the overall IT strategic plan (see Figure 4.) For example, few colleges or universities have strategic plans for electronic commerce (6.8 percent) or student portal services (12.6 percent). Less than a third (29.2 percent) report a strategic plan for distance learning initiatives. And barely half (52.2 percent) of the survey respondents indicate that their institution has a financial plan for technology that acknowledges the need to "acquire and retire" aging equipment.

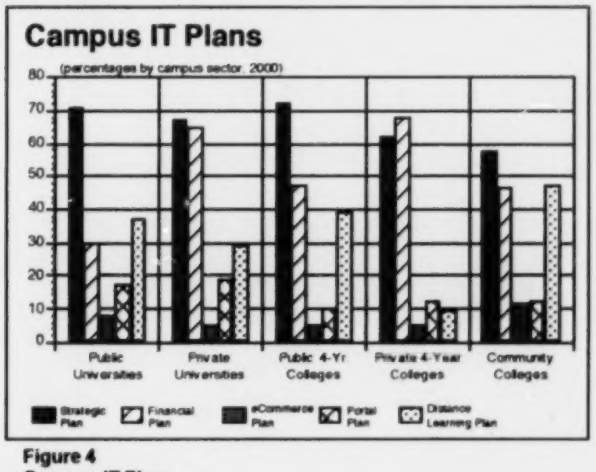

Figure 4
Campus IT Plans

More Technology in the Classroom

Yet even as campuses and campus officials continue to struggle with technology planning, the 2000 Survey reveals the growing use of technology to support instruction (Figure 5). Three-fifths (59.5 percent) of all college courses now utilize electronic mail, up from 54.0 percent last year, 44.0 percent in 1998, and 20.1 percent in 1995. Similarly, two-fifths (42.6 percent) of college courses now use Internet-based resources (for example, listing URLs in the class syllabus, up from 10.9 percent in 1995, 33.1 percent in 1998 and 38.9 percent in 1999). Almost a third (30.7 percent) of all college courses have a Web page, compared to 28.1 percent last year, 22.5 percent in 1998 and 9.2 percent in 1996. Concurrently, the 2000 Campus Computing Survey data reveal that almost one-fourth (23.0 percent) of all college faculty have a personal Web page not linked to a specific class or course, compared to just 19.0 percent in 1999.

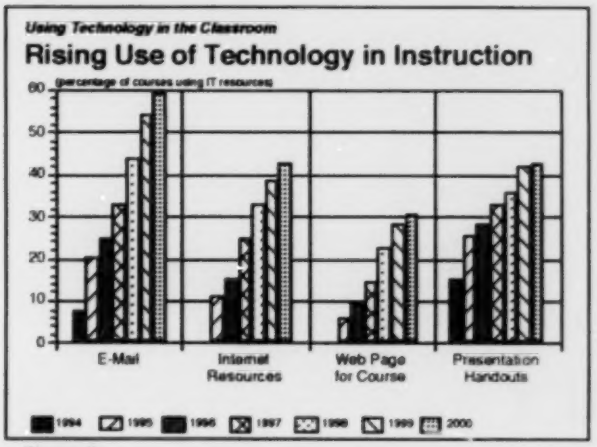

Figure 5
Rising Use of Technology in Instruction

While the deployment rates for technology resources to support instruction vary by campus type, gains in the use of technology have been steady, consistent, and impressive across all sectors. For example, the percentage of classes using e-mail in public research universities increased sevenfold between 1994 and 2000, to almost 70 percent. In community colleges, use of e-mail rose from 2 to over 40 percent during the same period (Figure 6).

Similarly, while the percentage of classes that have course Web sites varies by sector, within all sectors the proportion of college courses with a Web page increased by a factor of four between 1995 and 2000 (Figure 7).

Services on the Campus Web Site

Not surprisingly, this year's survey reveals that more institutions now offer more services on their campus Web sites: three-fourths (75.5 percent) of the institutions participating in the 2000 Survey provide online undergraduate applications, up from

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69.5 percent in 1999 and 55.4 percent in 1998. Over four-fifths (82.0 percent) of the campuses participating in the 2000 Survey provide their course catalog on online, compared to 77.3 percent last year and 65.2 percent in 1998.

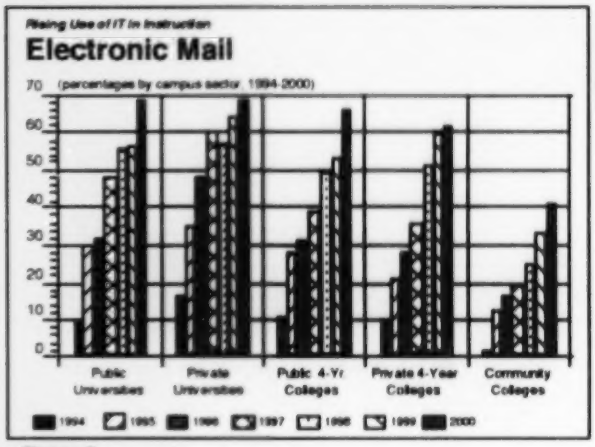

Figure 6
Classes That Use Electronic Mail

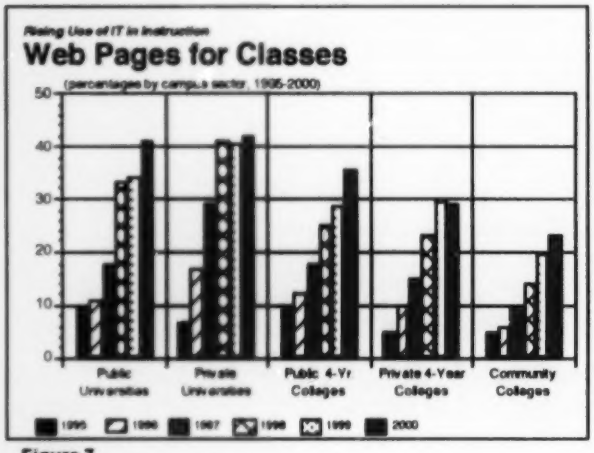

Figure 7
Classes That Have Web Pages

Course reserves are available on the Web at one-third (35.1 percent) of the institutions participating in the 2000 survey, up from a fourth in 1999, and 17.9 percent in 1998. And more than half (55.1 percent) of the participants in the 2000 Campus Computing Survey report that their institution currently offers one or more full college courses online via the Web, up from 46.5 percent last year. Here and elsewhere, of course, the data show significant differences across sectors: in most instances both public and private universities are more likely to offer a wider and deeper range of Web site services than four-year colleges or community colleges (Figure 8).

Campus Web Site Services

(percentages by campus type, 2000)

	Public University	Private University	Public 4-Yr. College	Private 4-Yr. College	Community College
undergraduate application	82.3	81.0	78.8	78.1	58.3
financial aid application	78.5	78.2	48.8	36.4	45.4
course catalog	93.8	95.2	85.7	73.6	82.4
course registration	78.5	71.4	56.6	29.2	27.8
online courses	81.5	52.4	69.0	30.9	68.5
library/card catalog	89.5	95.2	92.9	89.5	67.6
course reserves	67.7	66.7	38.1	32.6	13.0
student transcripts	53.8	61.9	37.3	22.5	22.2
IT support resources	89.2	95.2	77.0	62.9	35.2
instructional software	67.7	71.4	49.2	32.6	21.3
college book store serices	78.5	66.7	52.4	49.8	32.4
eCommerce (fee payment)	40.0	33.3	18.3	12.4	14.8

Figure 8
Services on the Campus Web Site

Planning for Electronic Commerce

The proportion of campuses reporting some type of eCommerce capacity on campus Web sites (i.e., the capacity of handle credit card fee payments) more than doubled over the past year, rising from 7.6 percent in 1999 to 18.6 percent in 2000.

But again the survey data point to significant differences across campus sectors. Although two-fifths (40.0 percent) of public universities have basic eCommerce capacity, just under one-fifth (18.3 percent) of public four-year colleges and about one-sixth (14.8 percent) of community colleges can process course fees via the Web. Similarly, while a third (33.3 percent) of private universities can handle tuition payments on the Web, just an eighth (12.4 percent) of private four-year colleges can process Web-based financial transactions.

Interestingly, although electronic commerce is exploding in other sectors of the economy, data from the 2000 Campus Computing Survey suggest that higher education is perhaps two or even three years behind the consumer marketplace on this issue. Transactions and services that are increasingly routine and expected in the consumer economy — credit card purchases and on-line account review — are not widely available on campus services for students, faculty, and staff.

Moreover, despite recent gains involving credit card transactions on campus Web sites, the 2000 Survey data also reveal that campus officials across all sectors of higher education identify eCommerce as a low or medium institutional priority compared to

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other strategic technology issues. For example, as shown above in Figure 1, the mean score for eCommerce is 4.7, lower than 18 other strategic IT issues (scale: 1=not important; 7=very important). Additionally, as shown below in Figure 9, survey respondents across all sectors of the campus community rank their institution's eCommerce capacity lowest among ten different components of the campus IT infrastructure.

Assessing the IT Infrastructure

(means by campus type, scale: 1=poor, 7=excellent)

	Public University	Private University	Public 4-Yr. College	Private 4-Yr. College	Community College
e-Commerce capacity	3.5	4.1	3.0	2.9	2.9
Computer/data networks	6.0	5.8	5.7	5.9	5.4
Phone/telecommunications	5.5	5.3	5.4	5.3	5.0
User support services	4.7	5.0	5.1	5.0	4.8
Online reference resources in campus library	5.5	5.5	5.5	5.5	5.2
Network security	4.8	4.9	4.8	4.7	4.5
IT training for students	4.3	4.5	3.9	4.2	4.0
IT training for faculty	4.6	4.7	4.5	4.5	4.2
Web resources to support instruction	5.0	5.0	4.8	4.6	4.5
Campus web site services/ student portal	4.4	4.6	4.1	3.8	3.7

Figure 9
Assessing the IT Infrastructure

Advertising on Campus Web Sites

Even as college and university officials expand the services on campus Web sites, it is clear that advertising is one feature of the Internet economy most survey respondents are eager to keep far away from their campus Web pages. Less than a fifth (19.5 percent) of the respondents "agree" or "strongly agree" that "colleges should permit commercial advertising on campus Web sites and portals" (Figure 10). Indeed, more than a third (36.3 percent) of the survey participants "strongly disagree" that advertising is appropriate for campus Web sites.

In the wake of what some describe as the college "cola wars" (that is, which company has rights to sell soft drinks on a particular campus) and the seeming ubiquity of corporate logos on college athletic attire, the 2000 data suggest that across all sectors of higher education, IT officials see the Internet and Web as perhaps the last "logo-free" zone on college campuses. Although many institutions would like additional financial resources to underwrite IT costs and other technology expenses, the survey data indicate that the majority of college IT officials strongly oppose any advertising on campus Web sites and portals.

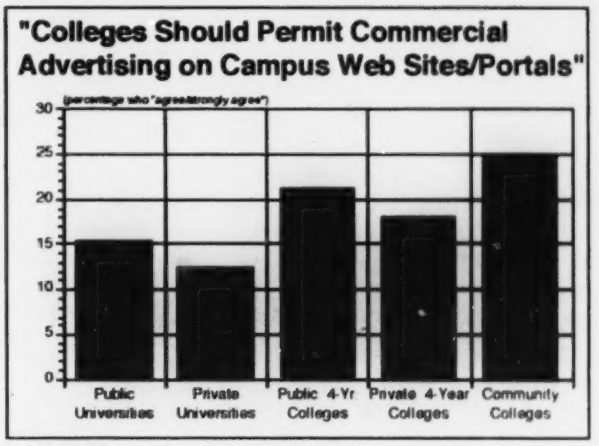

Figure 10
Advertising on Campus Web Pages

Course Management Software

The 2000 Survey includes several new questions about the growing role of Course Management Software (CMS) in instruction (i.e., products from companies such as Blackboard, Prometheus, or WebCT, among others). Survey respondents report that one-seventh (14.7 percent) of the classes at their institutions currently use some type of course management software (Figure 11).

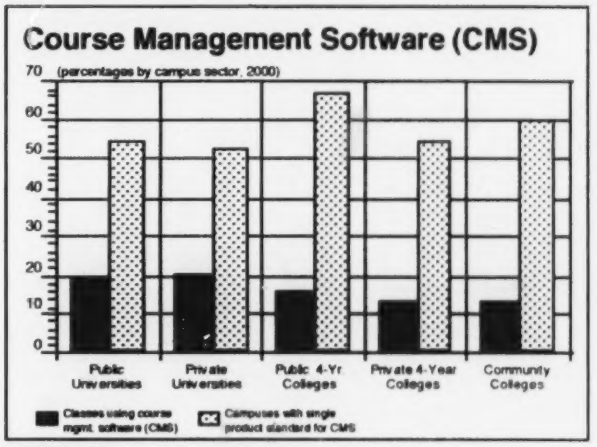

Figure 11
The Role of Course Management Software in Instruction

These numbers may seem low compared to the proportion of classes that use e-mail, presen-tation handouts, and Web pages (Figure 5). Yet a clear indicator of the growing importance of these CMS products is that almost three-fifths (57.8 percent) of the survey respondents report that their campus has already established a single product standard for

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course management tools. This represents a rare example of institutional policy moving ahead of campus practice: rather than support several CMS products or wait for market forces to determine the "winning" application, campus officials and committees are selecting a single CMS product for their institutions. These decisions reflect a campus effort to make a clear statement about the role of CMS applications in instruction. Additionally, the movement to early standards should help promote broader and faster deployment and also simplify and facilitate user support services.

ISP Services

Two new items on the 2000 Campus Computing Survey reveal great variations in campus policies and practices on the issue of off-campus Internet access (i.e., ISP services) for faculty and students.

As shown in Figure 12, roughly two-thirds of public and private universities provide free ISP services to their students. In contrast, more than four-fifths of community colleges, roughly three-fifths of private four-year colleges, and almost half of public four-year colleges provide no ISP services for their students.

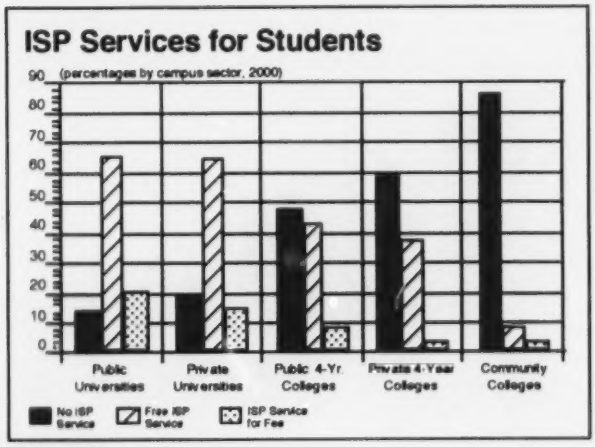

Figure 12
ISP Services for Students

At face value these numbers challenge the widely-held notion of "wired" undergraduates. Rather, these data confirm that students in some sectors are far more wired – or have access to the "wire" — than their peers in other kinds of institutions. These data also reveal that students in some sectors receive free services that others must purchase.

For example, although the "port to pillow" ratio (i.e., ratio of computer ports to pillows or beds in a college dorm room) approaches 100 percent at most residential colleges and universities, a large portion of full-time undergraduates, especially students in public universities and four-year colleges, typically live off-campus. Consequently, these students may enjoy the benefits of (high speed) broadband from their college dorms as freshmen. However, once these students move to off-campus housing, they typically depend on (low-speed) dial-up telephone connections via modems (copper wire) for off-campus Internet access.

What differentiates the experience of students in public and private research universities from their peers in four-year colleges and community colleges is that the university students often benefit from campus-supported dial-up services which are free. In contrast, a larger proportion of students in other sectors have to pay for their off-campus Internet services. As shown in Figure 12, the vast majority of community colleges do not provide ISP services for their students. Similarly, about half the public four-year colleges and close to three-fifths of private four-year colleges do not provide (off-campus) ISP services for their students. Consequently, students in these institutions often depend on commercial firms (AOL, AT&T, Earthlink, MCI, Mindspring, and others) for their Internet access; the cost may run about $250 annually.

The ISP patterns are somewhat similar for college faculty. Universities are far more likely to provide free ISP services to their faculty than other sectors (Figure 13). In contrast, the majority of community college faculty, just the vast majority of community college students, appear dependent on commercial ISP services for off-campus Internet access.

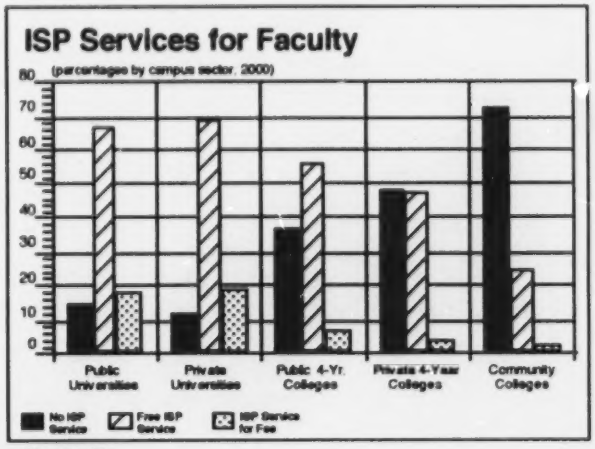

Figure 13
ISP Services for Faculty

CAMPUS COMPUTING, 2000

	All Institutions	Universities		4-Year Colleges		2-Year Colleges	
		Public	Private	Public	Private	Public	Private
Number of Respondents	506	65	21	126	178	108	8
GENERAL CAMPUS POLICIES ABOUT DESKTOP COMPUTERS							
Does your institution have:							
A formal policy promoting or mandating computers/ technology resources for							
Curriculum utilization?	30.2	34.9	19.0	29.8	29.2	28.3	62.5
Undergraduates?	35.4	39.7	28.6	37.9	38.4	25.7	50.0
Graduate students?	18.9	34.9	9.5	25.0	19.1	1.1	-
Distance education?	25.7	33.9	14.3	32.2	15.5	31.4	20.0
A computer instruction or computer competency requirement for all undergraduates?	40.4	32.3	19.0	42.1	44.3	38.9	87.5
A special computer use fee or annual/term computer use charge for all students?	49.9	75.0	38.1	61.8	35.6	47.7	37.5
Average computer use fee (where charged)	$ 178	$ 248	$ 210	$ 189	$ 145	$ 136	$ 40
Code of conduct for campus e-mail accounts and WWW pages?	89.2	95.2	95.2	92.6	93.7	76.6	50.0
Operating systems recommended/supported*							
Macintosh	68.0	87.7	85.7	79.4	66.3	42.6	50.0
Unix	49.0	81.5	71.4	52.4	39.3	38.0	12.5
Solaris	28.4	69.2	47.6	34.1	15.7	13.0	12.5
Linux	33.5	53.8	52.4	37.3	28.1	21.3	12.5
Windows 95/98	90.2	87.7	95.2	91.3	87.6	92.6	100.0
Windows NT Workstation	71.0	86.2	76.2	82.5	58.4	66.7	75.0
Windows 2000	52.7	70.8	57.1	54.8	42.7	53.7	62.5
None	3.5	16.9	9.5	1.6	1.1	0.9	-
Do you require or strongly recommend microcomputer ownership for							
All students							
No	60.6	57.1	33.3	59.5	47.2	93.5	37.5
Recommend	35.5	39.7	52.4	34.9	48.9	6.5	50.0
Require	4.0	3.2	14.3	5.6	4.0	-	12.5
Students in specific disciplines or programs							
No	49.6	20.0	11.1	45.3	49.1	78.5	42.9
Recommend	37.3	45.0	50.0	45.3	38.4	19.6	57.1
Require	13.1	35.0	38.9	9.4	12.6	1.9	-
Students in individual academic units/schools							
No	54.9	17.0	5.6	53.9	54.4	86.9	42.9
Recommend	36.0	47.5	66.7	41.9	38.6	13.1	57.1
Require	9.2	35.6	27.8	4.3	7.0	-	-
Does your institution recommend a particular brand/product for*							
Hardware							
students?	30.4	32.8	70.0	34.1	36.4	9.5	12.5
faculty?	64.3	54.7	85.0	78.6	68.6	44.9	37.5
administrators/staff?	68.5	57.8	85.0	84.1	73.1	46.7	62.5
Software							
students?	59.9	47.6	80.0	61.0	76.2	34.4	62.5
faculty?	79.1	64.1	90.0	87.2	84.8	67.3	75.0
administrators/staff?	81.1	67.2	95.0	89.6	84.8	70.3	87.5
Brands/kinds recommended by your institution*							
Apple/Macintosh							
G-4 desktop systems	42.5	53.8	66.7	50.8	44.4	19.4	25.0
iMac desktop systems	26.1	35.4	42.9	30.2	28.1	8.3	25.0
iBooks/PowerBooks	25.7	38.5	57.1	31.0	27.0	3.7	12.5
Windows Compatibles							
Pentium II class systems	15.7	12.3	9.5	13.5	20.2	13.9	25.0
Pentium III class systems	76.7	75.4	85.7	83.3	82.0	60.2	62.5
Pentium II class notebooks	15.5	15.4	19.0	19.8	17.4	7.4	12.5
Pentium III class notebooks	53.1	64.6	76.2	63.5	52.2	31.5	37.5
Unix Systems							
Compaq	9.2	15.4	19.0	12.7	6.2	5.6	-
IBM	9.8	27.7	38.1	7.9	3.9	5.6	-
Sun	24.9	46.2	57.1	31.7	18.0	9.3	12.5
HP	9.4	15.4	19.0	7.1	8.4	9.3	-
Silicon Graphics	8.8	24.6	28.6	10.3	4.5	0.9	-
Other	6.7	6.2	9.5	7.1	6.2	6.5	-

Percentages by campus category.

**Columns may total more than 100% since responses were not mutually exclusive.*

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	All Institutions	Universities		4-Year Colleges		2-Year Colleges	
		Public	Private	Public	Private	Public	Private
HARDWARE AND SOFTWARE RESALE POLICIES AND PROGRAMS							
Does your institution have pricing or resale agreement with							
Hardware vendors?							
No	52.1	29.5	5.0	44.3	53.0	81.3	87.5
No, sell through on-campus facility	1.5	-	-	2.7	1.8	1.0	-
Yes, sold through bookstore	17.1	36.1	30.0	22.1	10.8	9.4	-
Yes, sold through entity not affiliated with bookstore	11.5	19.7	40.0	9.7	12.1	1.0	12.5
Yes, sold by an off-campus dealer	9.2	3.3	5.0	14.2	10.2	6.3	-
Yes, sold online with one or more vendors	8.6	11.5	20.0	7.1	12.1	1.0	-
Software vendors?							
No	38.0	17.0	-	25.5	45.9	58.8	80.0
No, sell through on-campus facility	10.1	13.2	12.5	10.8	8.2	11.3	-
Yes, sold through bookstore	25.3	35.9	43.8	29.4	23.0	16.3	-
Yes, sold through entity not affiliated with bookstore	14.7	32.1	37.5	15.7	9.6	5.0	-
Yes, sold by an off-campus dealer	8.4	-	-	13.7	9.6	6.3	20.0
Yes, sold online with one or more vendors	3.5	1.9	6.3	4.9	3.7	2.5	-
Does your institution require computer buyers to purchase software as							
No	78.7	76.6	45.0	79.3	73.4	95.6	87.5
Strongly encouraged	15.0	20.3	45.0	13.8	15.8	4.4	12.5
Required	6.3	3.1	10.0	6.9	10.8	-	-
Does your institution have policy regarding duplication of copyrighted							
No	7.5	3.1	-	5.7	7.1	13.5	14.3
No, but under development	10.6	3.1	5.0	10.6	10.7	16.4	14.3
Yes	81.9	93.8	95.0	83.7	82.3	70.2	71.4

Percentages by campus category

USES OF INFORMATION TECHNOLOGY							
How strongly do you agree or disagree:*							
Faculty have unreasonable expectations about user support	2.6	2.4	2.7	2.7	2.7	2.7	2.5
Technology has improved instruction on my campus	3.0	3.1	2.9	3.0	3.0	3.0	3.1
We plan to require all students to own a computer by Fall 2001	1.8	1.7	2.1	1.9	1.9	1.4	2.0
Access to Internet 2 by Fall 2001 is essential to our long-term technology needs	2.1	3.0	3.1	2.0	1.9	1.8	1.8
Colleges should permit commercial advertising on campus web sites/portals	1.8	1.7	1.6	1.9	1.8	2.0	1.5
Our adm. systems provide effective support for conducting college business	2.8	2.8	2.7	2.8	2.8	2.9	2.4
My campus does a good job of planning our short- and mid- range technology needs	2.9	2.9	2.8	2.9	2.9	2.8	3.0
The single most important IT issue for my campus over the next 2 -3 years is:							
Provide online/distance education via the web	10.2	11.7	10.5	12.7	3.6	16.5	25.0
Providing adequate user support	22.3	20.0	31.6	29.7	20.1	16.5	12.5
Assist faculty integrate technology into instruction	40.5	36.7	26.3	32.2	50.9	38.8	37.5
Financing replacement of aging hardware/software	14.6	13.3	15.8	15.3	11.8	18.5	12.5
Moving toward campus-wide wireless networks	1.9	-	-	0.9	3.6	1.0	12.5
Integrating academic and administrative computing	1.9	-	10.5	0.9	1.2	3.9	-
Providing student portal services	4.2	8.3	-	2.5	5.9	1.9	-
Integrating eCommerce into campus services	4.6	10.0	5.3	5.9	3.0	2.9	-

Means by campus category.
**Scale from 1="Strongly Disagree" to 4="Strongly Agree".*

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CAMPUS COMPUTING, 2000

	All Institutions	Universities		4-Year Colleges		2-Year Colleges	
		Public	Private	Public	Private	Public	Private
CURRENT IT/COMPUTER FACILITIES AND RESOURCES							
Headcount enrollment on campus as of Spring 2000	8,002	21,846	12,882	8,534	2,516	7,563	727
Number of institution owned desktop or notebook computers and workstations	2,522	8,690	5,146	1,905	857	1,819	201
Number of institution owned Unix workstations	157	744	350	77	22	13	25
Percentage of institutional owned machines connected to the campus network	96	96	97	97	97	94	75
Number of personally owned desktop computers	1,390	5,297	5,430	1,017	757	81	29
Proportion of individuals who own desktop or notebook computers							
Students	58.6	65.4	78.2	60.5	64.2	40.5	34.3
Faculty	74.0	77.5	86.9	75.3	75.8	65.2	62.9
Administrators/staff	69.4	71.1	83.1	69.0	69.5	65.7	63.6
Number of desktop/notebook computers purchased by:							
1999-00							
Students	951	2,987	1,471	982	363	141	204
Faculty	204	809	510	161	81	59	24
Administrators/staff	200	756	735	144	80	55	12
Campus labs, clusters & other instructional use	226	621	335	231	96	180	33
2000-01							
Students	1,016	3,146	1,699	1,089	417	145	190
Faculty	185	665	514	160	77	56	20
Administrators/staff	190	710	725	137	76	59	15
Campus labs, clusters & other instructional use	222	496	336	240	102	214	38
Number of desktop computer labs, clusters and classrooms	54	110	81	69	27	46	9
How many labs are dedicated to departments or units?	23	41	41	29	10	24	2
Number of desktop computers/workstations in all labs/classrooms/clusters							
Computers	661	1,422	969	617	267	879	85
Unix Workstations	44	148	90	34	14	13	0
Number of network servers	98	488	231	43	22	45	6
Operating systems installed on institutionally-owned computers and servers (pct)							
Computers/clients							
Mac	12.9	13.3	19.2	13.5	15.2	5.1	19.0
Win 95/98	64.8	56.6	57.3	59.8	63.9	80.5	63.6
Win NT	22.3	17.9	15.1	24.6	23.8	19.6	27.7
Win 2000	7.3	7.1	6.9	7.3	7.3	7.0	6.8
Unix	4.5	7.3	10.1	3.7	3.9	1.6	0.5
Network servers							
Mac	4.5	4.9	4.1	3.7	5.6	2.2	20.3
Win NT	46.3	32.8	35.7	48.9	46.8	53.7	42.1
Win 2000 Server	7.7	5.1	4.5	5.2	8.6	11.9	21.8
Unix	17.9	24.9	30.5	16.3	18.7	7.9	0.8
Linux	10.3	8.6	6.9	9.6	13.0	9.4	4.2
Novell	30.5	31.7	31.0	26.8	28.9	39.6	0.6
FTE number of IT help desk/technical support personnel	31	131	79	19	12	15	4
Ratio of FTE help desk personnel to total headcount student enrollment	256	166	163	444	217	518	208
Percentage of faculty with individual/personal Web page	23	29	44	25	24	14	8
Percentage of classes that use:							
Computer-based classrooms/labs	27.2	27.1	19.7	28.5	23.7	32.0	39.3
Computer simulations	17.8	18.0	18.0	18.0	15.8	20.4	18.6
Presentation handouts	42.5	43.5	52.9	47.3	38.5	40.8	32.9
Electronic mail	59.5	68.2	68.5	65.9	61.8	40.8	57.1
Commercial courseware/instructional resources	17.1	16.3	14.1	15.4	17.1	20.1	16.7
Internet resources	42.6	45.9	39.1	47.5	44.3	33.2	31.4
Course management tools for online course resources	14.7	18.8	20.4	15.8	13.4	12.8	7.1
Web pages for class materials and resources	30.7	41.0	42.1	35.6	27.5	22.9	12.1

Means by campus category.

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	All Institutions	Universities		4-Year Colleges		2-Year Colleges	
		Public	Private	Public	Private	Public	Private
ACADEMIC & INSTRUCTIONAL COMPUTING POLICIES AND PROCEDURES & RESOURCES							
Does your campus/institution have/provide							
Plan for integrating IT into the curriculum	40.0	31.7	45.0	40.8	38.2	44.9	50.0
Projects for developing desktop instructional software/courseware	60.4	87.5	81.0	68.0	51.4	47.7	37.5
Support for faculty developing instructional software/courseware	77.0	90.6	85.7	83.7	69.5	75.7	37.5
Support for faculty developing software for their research	44.9	64.1	75.0	52.9	39.5	27.4	37.5
Program for rewarding courseware development	35.0	43.8	28.6	41.9	28.9	35.5	-
Technology resource center focusing on use of IT	69.3	98.4	81.0	79.8	55.7	63.6	25.0
Agreements/licenses for duplication of software products?	70.1	87.5	85.0	72.8	69.4	56.1	37.5
Plan for using Internet resources in instruction	40.4	42.2	42.9	40.8	35.6	46.2	25.0
Plan for using Internet resources in distance education	37.6	45.3	33.3	45.6	18.7	54.3	25.0
Plan for using Internet for marketing to off-campus audiences	48.7	56.6	61.9	41.1	55.5	39.6	50.0
Program to reward use of IT in faculty review/promotion process	16.9	11.5	25.0	15.4	19.7	14.0	25.0
Maintain library of academic courseware	28.5	38.7	35.0	30.6	26.3	21.7	12.5
Program assessing the impact of IT on instruction	20.6	25.0	25.0	24.4	18.4	17.1	25.0
Policy regarding ownership of Web-based resources developed by faculty	36.7	61.9	52.4	43.0	20.7	39.3	-
Program to provide supplemental IT training for IT staff	54.6	68.9	81.0	49.2	54.3	48.6	50.0
Does your institution have a strategic plan for:							
Information technology?							
no	8.9	7.8	9.5	7.2	8.6	12.2	12.5
currently preparing a plan	26.2	21.9	23.8	20.8	29.7	29.9	25.0
yes	64.9	70.3	66.7	72.0	61.7	57.9	62.5
Electronic commerce?							
no	64.5	51.6	23.8	65.3	68.4	72.6	75.0
currently preparing a plan	28.7	40.6	71.4	29.8	27.0	16.0	12.5
yes	6.8	7.8	4.8	4.8	4.6	11.3	12.5
Distance education?							
no	42.3	33.9	14.3	37.1	64.2	23.1	50.0
currently preparing a plan	28.4	29.0	57.1	23.4	26.6	29.8	37.5
yes	29.2	37.1	28.6	39.5	9.3	47.1	12.5
Campus portal services							
no	51.7	29.7	19.1	54.1	51.7	67.9	75.0
currently preparing a plan	35.7	53.1	61.9	36.1	36.2	19.8	12.5
yes	12.6	17.2	19.1	9.8	12.1	12.3	12.5
Has your institution established a single product standard for:							
Desktop/notebook computer operating system							
No	63.6	93.9	81.0	74.2	55.2	43.0	62.5
Macintosh	2.4	1.5	4.8	0.8	4.0	1.9	-
Win 95/98	23.3	-	9.5	15.3	25.9	46.7	12.5
Win NT Workstation	6.2	1.5	-	5.7	9.2	5.6	12.5
Win 2000 Professional	4.6	3.1	4.8	4.0	5.8	2.8	12.5
Desktop/notebook product or manufacturer							
No	68.3	90.8	80.0	74.2	62.4	55.1	62.5
Apple	2.8	1.5	5.0	2.4	3.5	2.8	-
Compaq	4.0	-	10.0	4.0	5.2	3.7	-
Dell	9.2	4.6	-	10.5	8.7	12.2	12.5
Gateway	6.8	1.5	-	7.3	5.8	12.2	12.5
HP	1.0	-	-	-	1.7	1.9	-
IBM	2.8	1.5	-	-	5.2	2.8	12.5
Other	5.2	-	5.0	1.6	7.5	9.4	-
Web browser							
No	58.0	80.2	57.1	66.4	45.2	50.5	50.0
Microsoft Explorer	17.8	4.6	14.3	12.0	21.5	25.2	50.0
Netscape Navigator	24.1	6.2	28.6	20.8	33.3	24.3	-
Other	0.2	-	-	0.8	-	-	-
GroupWare							
No	57.3	73.9	76.2	56.6	51.4	53.3	62.5
Lotus Notes	4.0	3.1	9.5	4.1	3.4	4.7	-
Microsoft Exchange	22.9	12.3	9.5	24.6	26.6	23.4	37.5
Novell Groupwise	13.1	9.2	4.8	12.3	13.6	18.7	-
Other	2.8	1.5	-	2.5	5.1	-	-
Course management system							
No	42.2	44.6	47.6	32.8	45.7	40.2	87.5
Blackboard	25.4	20.0	23.8	29.6	27.4	22.4	-
eCollege	1.6	-	4.8	1.6	1.7	1.9	-
Lotus Learning Space	0.6	-	4.8	-	1.1	-	-
WebCT	22.8	26.2	19.1	29.6	13.1	31.8	-
Other	7.5	9.2	-	6.4	10.9	3.7	12.5

Percentages by campus category

	All Institutions	Universities		4-Year Colleges		2-Year Colleges	
		Public	Private	Public	Private	Public	Private
ACADEMIC & INSTRUCTIONAL COMPUTING POLICIES AND PROCEDURES (Continued)							
What academic resources/services are on your campus Web site?*							
Undergraduate admissions applications	75.5	92.3	81.0	78.6	78.1	58.3	75.0
Financial aid application	47.5	78.5	76.2	46.8	35.4	45.4	37.5
Current course catalog	82.0	93.8	95.2	85.7	73.6	82.4	87.5
Program/major/degree requirements	77.1	87.7	76.2	78.6	73.6	75.9	100.0
Course registration	43.1	78.5	71.4	55.6	29.2	27.8	12.5
Course add/drop options	35.7	69.2	71.4	49.2	21.9	18.5	-
E-commerce (fee payments, etc.)	18.6	40.0	33.3	18.3	12.4	14.8	-
On-line courses (i.e., full course online)	55.1	81.5	52.4	69.0	30.9	68.5	-
Library/card catalog	85.1	98.5	95.2	92.9	86.5	67.6	50.0
Interlibrary loan services	59.8	81.5	90.5	68.3	60.7	35.2	-
Journals and reference resources	72.9	90.8	85.7	82.5	72.5	53.7	12.5
Course reserves	35.1	67.7	66.7	38.1	32.6	13.0	-
Student transcripts	31.6	53.8	61.9	37.3	22.5	22.2	-
IT support resources	64.7	89.2	95.2	77.0	62.9	35.2	12.5
IT training/tutorials	48.0	69.2	85.7	62.7	42.1	24.1	-
Instructional software	40.0	67.7	71.4	49.2	32.6	21.3	12.5
Faculty/staff directory	86.3	96.9	95.2	88.1	82.0	85.2	50.0
Student newspaper	44.7	80.0	90.5	45.2	43.8	19.4	-
Student handbook	47.8	75.4	76.2	50.0	44.9	29.6	37.5
Athletic event schedule	74.3	98.5	100.0	77.0	80.3	46.3	37.5
Alumni information/services	66.5	93.8	100.0	77.0	75.8	18.5	37.5
Press releases/media services	66.3	87.7	85.7	74.6	68.0	39.8	25.0
Campus book store	50.0	78.5	66.7	52.4	48.9	32.4	12.5
Customizable student home page	34.7	61.5	66.7	42.1	32.6	8.3	25.0

Percentages by campus category.
**Columns may not total 100% since responses are not mutually exclusive.*

FUTURE ISSUES AFFECTING CAMPUS COMPUTING							
How important are the following to campus computing/IT planning over							
Operating system/interface/development							
Windows 98	4.0	3.7	3.6	4.0	4.0	4.2	4.0
Windows NT Server	4.8	4.8	4.7	5.1	4.5	4.8	4.9
Windows 2000 Prof.	5.4	5.6	5.8	5.6	5.2	5.3	6.3
Windows 2000 Server	5.3	5.5	6.0	5.4	5.0	5.2	6.1
Windows CE	2.5	2.7	3.5	2.4	2.4	2.2	3.3
Macintosh O/S	3.4	3.7	4.6	3.7	3.3	2.6	4.6
Macintosh O/S X server	2.5	3.0	4.1	2.7	2.5	1.8	3.7
Solaris	3.3	5.1	4.9	3.7	2.7	2.1	1.0
Unix	4.3	5.7	5.7	4.6	4.1	3.5	1.6
Linux	4.2	5.1	5.6	4.3	4.2	3.4	3.3
Hardware							
Notebook computers	5.5	5.8	6.0	5.7	5.3	5.0	6.1
Macintosh computers	3.4	3.7	4.8	3.7	3.4	2.6	4.1
Unix workstations	3.3	4.5	4.9	3.6	2.9	2.3	1.6
Network computers	3.5	3.3	4.0	3.4	3.2	3.9	4.3
DVD	4.2	4.3	4.5	3.9	4.2	4.3	4.4
Smart Cards	4.2	4.7	5.1	4.2	4.0	4.0	4.1
Instructional applications and resources							
Developing instructional software	4.8	5.2	5.3	5.3	4.4	4.6	4.5
Using instructional software in classes	5.9	6.2	6.0	6.1	5.7	5.8	6.6
Using instructional software as a supplement to class	6.0	6.2	6.2	6.2	5.9	5.8	6.6
Computer-based classroom presentation facilities	6.2	6.4	6.1	6.3	6.1	6.0	6.4
Internet resources for instruction	6.3	6.4	6.4	6.3	6.2	6.1	6.5
CD-ROM libraries	4.6	4.6	4.2	4.5	4.4	5.0	5.9
Web pages for classes	6.0	6.4	6.0	6.2	5.8	5.6	6.1
Web-based tutorials	5.5	5.9	5.2	5.7	5.2	5.4	6.0
Computer-based classroom	5.6	5.7	5.7	5.7	5.3	5.5	5.6
e-Books (e-Textbooks)	4.3	4.6	4.7	4.3	4.1	4.1	4.9

Mean ratings by campus category
Scale from 1="Not Important" to 7="Very Important".

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	All Institutions	Universities		4-Year Colleges		2-Year Colleges	
		Public	Private	Public	Private	Public	Private
FUTURE ISSUES AFFECTING CAMPUS COMPUTING (Continued)							
Networking & Internet/WWW issues & resources							
Merging data & telecommunications networks	5.1	6.0	6.0	5.3	4.5	5.0	5.3
Wireless networks	5.2	5.7	5.8	5.4	5.0	4.8	4.6
Voice over IP	4.6	5.3	5.6	4.6	4.1	4.8	4.9
Lotus Notes	1.9	2.1	2.4	1.8	1.8	2.1	2.7
Lotus Domino	1.8	2.0	2.4	1.8	1.7	1.9	2.7
Microsoft Exchange	3.8	3.7	3.3	3.8	3.5	4.2	4.9
Java	4.9	5.4	5.6	5.1	4.6	4.5	4.9
Shockwave	4.0	4.3	4.6	3.9	3.9	3.8	4.7
QuickTime	4.3	4.6	5.1	4.2	4.2	4.1	4.7
Real Player	4.6	5.1	5.3	4.8	4.4	4.4	5.3
Gigabit Ethernet	5.6	6.1	6.6	6.1	5.3	5.2	5.3
ATM	3.7	4.4	3.9	4.2	2.9	4.1	3.3
Adobe Acrobat	5.1	5.3	5.5	5.2	5.0	5.1	6.1
Internet 2	4.3	6.0	6.0	4.6	3.5	3.8	4.0
Internet videoconferencing	5.1	5.8	5.7	5.4	4.5	5.2	5.0
Network security	6.4	6.6	6.7	6.5	6.3	6.3	6.5
E-commerce on the Web	5.0	5.8	5.7	5.3	4.5	4.8	4.1
Open source software	4.2	4.9	5.1	4.3	4.0	3.7	3.5
Student portal services	5.0	5.8	5.5	5.3	4.8	4.3	5.1
IMS standards	4.2	5.0	4.9	4.4	3.9	4.0	4.3
Course management software	5.5	6.0	6.2	5.6	5.2	5.3	5.5
User Support Services/Campus IT Services							
On-line IT training	5.1	5.5	5.7	5.3	4.8	4.9	5.3
On-line technical support	5.4	5.8	5.9	5.5	5.2	5.1	5.6
Computer resale program	3.4	3.8	5.0	3.5	3.1	2.9	3.7
Software licensing programs that include students	4.9	5.2	6.0	5.2	4.7	4.1	5.0
Advertising on the student portal site	3.3	3.4	3.4	3.5	3.2	3.2	3.6
Computer repair services	4.4	4.0	4.7	4.6	4.1	4.6	4.8
Alumni services via the campus web site	4.9	5.0	5.6	5.0	5.2	3.7	5.4

Mean ratings by campus category
Scale from 1="Not Important" to 7="Very Important".

	All Institutions	Universities		4-Year Colleges		2-Year Colleges	
		Public	Private	Public	Private	Public	Private
RATING THE TECHNOLOGY INFRASTRUCTURE							
Computer networks and data communication	5.7	6.0	5.8	5.7	5.8	5.4	5.1
Telecommunications and phone system	5.3	5.5	5.3	5.4	5.3	5.0	4.9
Video	4.3	4.6	4.8	4.3	4.0	4.5	4.5
User support services	4.9	4.7	5.0	5.1	5.0	4.8	5.0
On-line reference resources in campus library/library system	5.4	5.5	5.5	5.5	5.5	5.2	4.5
Web resources to support instruction	4.7	5.0	5.0	4.8	4.6	4.5	4.4
E-commerce capacity	3.0	3.5	4.1	3.0	2.9	2.9	2.3
Campus web site services/student portal	3.9	4.4	4.6	4.1	3.8	3.7	3.0
Network security against hackers and virus attacks	4.7	4.8	4.9	4.8	4.7	4.5	5.4
IT training for faculty	4.4	4.6	4.7	4.5	4.5	4.2	4.5
IT training for students	4.1	4.3	4.5	3.9	4.2	4.0	4.6

Mean rating by campus category.
Scale from 1="Poor" to 7="Excellent".

ADDRESSING BUDGET ISSUES BY:							
Reducing purchases of computer technology							
Doing this already	10.5	13.9	9.5	8.1	8.2	14.7	25.0
Beginning in 2000-01	3.2	1.5	-	4.1	1.2	6.9	12.5
Reviewing for 2000-01	6.1	4.6	-	4.9	7.0	8.8	-
Decided not to do	80.2	80.0	90.5	82.9	83.6	69.6	62.5
Charging fees to departments and service units							
Doing this already	18.8	45.3	33.3	22.0	10.4	9.7	25.0
Beginning in 2000-01	4.0	6.3	4.8	6.5	1.7	3.9	-
Reviewing for 2000-01	16.7	18.8	4.8	16.3	15.0	21.4	12.5
Decided not to do	60.5	29.7	57.1	55.3	72.8	65.1	62.5
Requiring a computer/IT fee for all students							
Doing this already	47.4	70.3	44.4	61.5	32.4	42.7	37.5
Beginning in 2000-01	3.1	4.7	-	1.6	3.5	3.9	-
Reviewing for 2000-01	10.8	7.8	-	8.2	13.3	12.6	12.5
Decided not to do	38.8	17.2	55.6	28.7	50.9	40.8	50.0
Leasing rather than buying hardware							
Doing this already	19.0	20.6	23.8	15.5	24.0	11.0	42.9
Beginning in 2000-01	3.7	3.2	9.5	0.8	4.1	6.0	-
Reviewing for 2000-01	19.8	17.5	19.1	22.8	18.1	21.0	14.3
Decided not to do	57.5	58.7	47.6	61.0	53.8	62.0	42.9
More active recycling of older equipment							
Doing this already	79.0	78.5	75.0	80.8	75.3	82.9	87.5
Beginning in 2000-01	1.6	-	-	1.6	0.6	3.8	12.5
Reviewing for 2000-01	3.0	3.1	-	2.4	3.5	3.8	-
Decided not to do	16.4	18.5	25.0	15.2	20.7	9.5	-
Vendor financing							
Doing this already	16.4	17.7	40.0	13.3	18.2	10.1	42.9
Beginning in 2000-01	1.5	1.6	-	1.7	1.2	2.0	-
Reviewing for 2000-01	9.5	16.1	5.0	10.0	6.5	11.1	-
Decided not to do	72.6	64.5	55.0	75.0	74.1	76.8	57.1
Reducing hours in public access facilities							
Doing this already	6.7	10.9	-	7.3	3.5	10.9	-
Beginning in 2000-01	1.4	-	4.8	0.8	0.6	4.0	-
Reviewing for 2000-01	5.3	6.3	4.8	4.8	5.8	4.0	14.3
Decided not to do	86.7	82.8	90.5	87.1	90.2	81.2	85.7
Reducing services							
Doing this already	11.1	16.9	-	11.8	7.1	14.3	25.0
Beginning in 2000-01	1.0	1.5	-	0.8	-	3.1	-
Reviewing for 2000-01	7.0	10.8	4.8	7.6	5.3	8.2	-
Decided not to do	80.8	70.8	95.2	79.8	87.7	74.5	75.0
Reorganizing operations							
Doing this already	49.8	69.2	76.2	55.3	43.1	38.2	42.9
Beginning in 2000-01	4.6	9.2	-	4.9	3.5	3.9	14.3
Reviewing for 2000-01	16.5	12.3	14.3	22.0	12.6	20.6	14.3
Decided not to do	29.0	9.2	9.5	17.9	40.8	37.3	28.6
Reducing staff							
Doing this already	9.0	9.7	21.1	10.7	8.0	5.9	-
Beginning in 2000-01	0.6	3.2	-	-	-	1.0	-
Reviewing for 2000-01	4.8	6.5	5.3	5.0	2.5	7.8	-
Decided not to do	85.6	80.7	73.7	84.3	89.6	85.3	100.0
Using information technology to reduce instructional costs							
Doing this already	35.8	38.3	44.4	43.5	28.9	33.7	50.0
Beginning in 2000-01	2.8	1.7	5.6	3.5	2.4	3.1	-
Reviewing for 2000-01	23.5	30.0	11.1	20.9	20.5	30.6	25.0
Decided not to do	38.0	30.0	38.9	32.2	48.2	32.7	25.0

Percentages by campus category.

	All Institutions	Universities		4-Year Colleges		2-Year Colleges	
		Public	Private	Public	Private	Public	Private
ADDRESSING BUDGET ISSUES BY: (Continued)							
Making greater use of student assistants							
Doing this already	79.3	90.8	85.0	90.3	79.2	62.5	50.0
Beginning in 2000-01	4.0	1.5	10.0	1.6	4.6	6.7	-
Reviewing for 2000-01	6.8	6.2	-	3.2	6.4	11.5	25.0
Decided not to do	9.8	1.5	5.0	4.8	9.8	19.2	25.0
Outsourcing Internet access to commercial providers							
Doing this already	27.7	31.8	35.0	21.3	33.5	20.2	62.5
Beginning in 2000-01	2.6	3.2	15.0	1.6	0.6	3.9	12.5
Reviewing for 2000-01	11.9	12.7	10.0	14.8	11.0	9.6	12.5
Decided not to do	57.7	52.4	40.0	62.3	54.9	66.4	12.5
Outsourcing computing services to commercial providers							
Doing this already	9.4	9.4	-	4.9	12.2	10.8	14.3
Beginning in 2000-01	1.4	-	10.0	1.6	-	2.9	-
Reviewing for 2000-01	9.8	10.9	15.0	12.3	7.0	9.8	14.3
Decided not to do	79.4	79.7	75.0	81.2	80.8	76.5	71.4
Outsourcing student portal services to commercial providers							
Doing this already	5.4	6.3	-	4.2	4.8	6.9	28.6
Beginning in 2000-01	4.2	4.7	-	2.5	4.8	5.9	-
Reviewing for 2000-01	29.1	29.7	38.9	33.3	29.2	22.8	28.6
Decided not to do	61.4	59.4	61.1	60.0	61.3	64.4	42.9

Percentages by campus category.

*STRATEGIC, BUDGET AND PERSONNEL ISSUES**							
Assessing benefits of current investment	5.6	5.4	5.6	5.8	5.4	5.6	6.3
Clarifying goals and campus plans for tech. resources	6.1	6.2	6.3	6.2	6.1	6.0	6.3
Providing incentives for faculty to use technology	5.1	5.5	4.8	5.4	4.8	5.1	5.0
Allocating funds to support expanded services	5.7	6.0	5.7	5.9	5.3	5.7	5.7
Faculty concerns about benefits of computing in the curriculum	5.0	4.9	4.8	5.1	4.8	5.1	5.5
Administrative concerns about benefits of computing in the curriculum	4.7	4.6	4.2	4.9	4.5	5.0	5.4
Developing/strengthening vendor relationships	4.7	5.1	5.0	4.9	4.3	4.5	4.8
Charging fees to students for computer/network access	4.2	4.6	3.2	4.7	3.6	4.2	5.3
Establishing/maintaining campus-wide hardware standards	5.5	5.1	5.4	5.8	5.5	5.5	5.8
Establishing/maintaining campus-wide software standards	5.7	5.2	5.3	5.9	5.7	5.7	5.8
Operating a resale program	3.0	3.3	4.6	3.0	2.7	2.7	3.3
Developing budget model to replace aging equipment	6.0	5.9	5.9	6.2	5.8	6.3	5.8
Using Internet/Web resources in instruction	6.0	6.3	5.9	6.1	5.8	6.0	5.9
Using technology based commercial curriculum products	4.9	5.1	4.7	5.0	4.6	5.1	5.5
Using IT to enhance distance education program	5.2	6.1	5.3	5.7	3.9	5.9	5.8
Negotiating site licensing with textbook publishers	4.2	4.3	4.9	4.2	3.8	4.5	5.0
Negotiating site licensing with academic publishers	4.3	4.7	5.3	4.3	4.0	4.5	5.0
Sharing digital resources with other campuses/institutions	4.8	5.5	5.1	5.0	4.2	4.8	5.4
Developing campus policies for Web-based intellectual property	5.3	5.7	5.8	5.4	5.1	5.2	5.1
Helping our IT personnel stay current with new technologies	6.2	6.4	6.1	6.3	6.1	6.0	6.3
Retaining current IT personnel, given off-campus competition	6.3	6.6	6.6	6.4	6.2	6.2	5.8
Electronic commerce	4.7	5.7	5.5	5.0	4.1	4.8	3.5
Web-based instructional/course management systems	5.6	6.2	6.0	5.9	5.2	5.5	5.8
Acquiring IT resources via corporate grants from key vendors	4.7	5.2	4.7	4.7	4.4	4.9	5.1
Providing a "campus portal" for Web-based student services	5.2	6.0	5.8	5.2	5.0	4.7	5.1
Moving more of our user support services to the Web	5.5	6.2	6.1	5.7	5.2	5.2	5.3
Surveying student and faculty about IT issues and services	5.3	5.5	5.4	5.4	5.2	5.1	5.4

Mean ratings by campus category.
Scale from 1="Not Important" to 7="Very Important".

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	All Institutions	Universities		4-Year Colleges		2-Year Colleges	
		Public	Private	Public	Private	Public	Private
THIS YEAR'S COMPUTING BUDGET COMPARED TO LAST YEAR'S							
Total academic computing budget							
Reduced >5%	4.3	3.1	-	6.5	2.9	4.9	14.3
Reduced 3-5%	2.2	4.7	-	4.0	0.6	1.9	-
Reduced 1-3%	3.9	4.7	-	1.6	2.9	7.8	14.3
No change	31.6	28.1	35.0	35.5	28.7	34.0	14.3
Increased 1-3%	27.0	34.4	15.0	26.6	26.3	26.2	28.6
Increased 3-5%	15.0	17.2	30.0	12.9	17.5	9.7	-
Increased >5%	16.0	7.8	20.0	12.9	21.1	15.5	28.6
Total administrative computing budget							
Reduced >5%	3.7	4.8	-	5.7	2.4	2.9	14.3
Reduced 3-5%	2.5	3.2	-	4.9	0.6	2.9	-
Reduced 1-3%	5.5	6.5	-	3.3	5.4	7.8	14.3
No change	33.4	33.9	23.8	37.4	29.8	38.8	-
Increased 1-3%	25.2	19.4	47.6	20.3	28.0	23.3	42.9
Increased 3-5%	13.7	21.0	4.8	13.8	14.9	10.7	-
Increased >5%	16.0	11.3	23.8	14.6	19.1	13.6	28.6
Purchases of computers by academic computing units							
Reduced >5%	5.5	3.2	-	6.5	5.3	6.9	14.3
Reduced 3-5%	1.8	1.6	-	2.4	1.8	2.0	-
Reduced 1-3%	3.3	1.6	-	3.2	1.2	6.9	28.6
No change	39.4	32.3	45.0	49.2	36.3	36.3	28.6
Increased 1-3%	23.7	33.9	15.0	19.4	22.8	25.5	14.3
Increased 3-5%	11.8	19.4	15.0	10.5	12.3	8.8	-
Increased >5%	14.5	8.1	25.0	8.9	20.5	13.7	14.3
Purchases of computers by administrative computing units							
Reduced >5%	5.1	3.2	-	5.7	5.3	5.9	14.3
Reduced 3-5%	2.0	3.2	4.8	2.4	1.2	2.0	-
Reduced 1-3%	4.7	4.8	-	5.7	1.8	7.9	14.3
No change	44.6	41.9	38.1	50.0	44.1	44.6	28.6
Increased 1-3%	23.5	25.8	28.6	20.2	24.1	21.8	28.6
Increased 3-5%	10.2	17.7	9.5	7.3	11.8	7.9	-
Increased >5%	9.8	3.2	19.1	8.9	11.8	9.9	14.3
All institutional purchases of desktop/notebook computers							
Reduced >5%	5.1	3.2	-	6.5	4.7	5.8	14.3
Reduced 3-5%	1.8	1.6	-	1.6	1.8	1.9	14.3
Reduced 1-3%	3.7	3.2	5.0	4.1	2.4	5.8	-
No change	34.7	28.6	20.0	43.1	32.4	35.9	28.6
Increased 1-3%	26.7	38.1	25.0	26.0	23.5	26.2	14.3
Increased 3-5%	13.5	17.5	25.0	8.9	14.7	11.7	14.3
Increased >5%	14.5	7.9	25.0	9.8	20.6	12.6	14.3
Network servers							
Reduced >5%	2.6	1.6	-	2.4	2.3	2.9	28.6
Reduced 3-5%	1.4	-	-	3.2	0.6	2.0	-
Reduced 1-3%	2.9	-	-	3.2	2.9	4.9	-
No change	35.2	28.6	14.3	34.7	36.3	43.1	28.6
Increased 1-3%	32.5	46.0	38.1	34.7	28.7	25.4	-
Increased 3-5%	14.0	19.1	28.6	11.3	13.5	10.8	14.3
Increased >5%	11.4	4.8	19.1	10.5	15.8	6.9	28.6
Server software and related services							
Reduced >5%	2.3	1.6	-	2.4	1.8	2.0	28.6
Reduced 3-5%	1.0	-	-	2.4	-	2.0	-
Reduced 1-3%	3.1	1.6	-	4.1	3.5	3.0	-
No change	36.6	28.6	9.5	38.2	37.1	44.6	42.9
Increased 1-3%	28.8	39.7	42.9	29.3	25.9	25.7	-
Increased 3-5%	16.2	20.6	23.8	12.2	17.1	13.9	14.3
Increased >5%	12.1	7.9	23.8	11.4	14.7	8.9	14.3
User training and support							
Reduced >5%	2.9	1.6	-	4.8	1.7	3.0	14.3
Reduced 3-5%	1.0	-	-	2.4	-	1.0	14.3
Reduced 1-3%	3.1	1.6	-	3.2	3.5	4.0	-
No change	41.5	41.3	33.3	43.6	43.6	37.6	28.6
Increased 1-3%	26.6	31.8	19.1	25.0	23.3	33.7	14.3
Increased 3-5%	13.4	17.5	19.1	8.9	15.1	12.9	14.3
Increased >5%	11.6	6.4	28.6	12.1	12.8	7.9	14.3

Percentages by campus category

CAMPUS COMPUTING, 2000

	All Institutions	Universities		4-Year Colleges		2-Year Colleges	
		Public	Private	Public	Private	Public	Private
THE TECHNOLOGY BUDGET							
Percentage institutions experiencing computing budget cut, 1998-99	5.3	10.9	4.8	6.4	4.7	2.0	-
Percentage of budget that was cut	6.7	2.9	1.0	6.1	9.2	11.7	
Total academic computing budget 1999-00 (in thousands $$)	2,216	7,118	11,346	1,720	981	757	247
Percent of budget allocated to:							
Hardware	27.6	19.5	16.4	25.4	30.0	34.3	25.5
Content licenses	12.7	11.5	10.9	10.4	13.9	12.8	30.5
Software	45.4	55.5	56.4	48.1	39.8	45.1	25.6
User support	7.4	4.4	4.2	7.3	6.6	11.6	10.0
Personnel	16.7	21.0	23.1	16.3	16.1	14.2	13.0
Network service/support	13.2	13.5	14.6	13.1	12.4	14.0	19.2
Note: numbers may not equal 100% because of overlapping budget categories)							
Academic computing budget as an estimated percentage of total institutional IT expenditures	43.7	39.2	42.7	45.7	43.5	44.5	43.3
Current replacement cycle for desktop/notebook computers (years)							
Student labs							
1 year	0.6	-	5.0	-	1.2	-	-
2 years	9.6	6.6	5.0	7.7	12.1	10.3	16.7
3 years	58.7	70.5	65.0	54.7	60.6	51.6	33.3
4 years	24.0	19.7	25.0	28.2	19.4	29.9	33.3
5 years	7.0	3.3	-	9.4	6.7	8.3	16.7
Faculty offices							
1 year	-	-	-	-	-	-	-
2 years	2.6	-	-	4.3	2.5	2.1	20.0
3 years	41.1	45.6	55.0	37.1	45.4	35.1	-
4 years	37.0	36.8	40.0	32.8	35.6	42.3	60.0
5 years	19.3	17.5	5.0	25.9	16.6	20.6	20.0
Administrative offices							
1 year	-	-	-	-	-	-	-
2 years	2.8	-	-	2.6	2.4	5.2	16.7
3 years	41.2	49.1	40.0	44.0	40.6	34.4	16.7
4 years	38.2	40.4	55.0	29.3	38.8	41.7	66.7
5 years	17.9	10.5	5.0	24.1	18.2	18.8	-

Means and percentages by campus category.

CAMPUS COMPUTING, 2000

	All Institutions	Universities		4-Year Colleges		2-Year Colleges	
		Public	Private	Public	Private	Public	Private
WEB AND NETWORKING ISSUES							
How important are the following issues on your campus?*							
Supporting instructional labs & clusters	6.0	5.9	5.8	6.2	5.8	6.0	6.1
Creating Web pages for dept. use and course resources	5.5	5.5	5.8	5.7	5.5	5.3	5.6
Web/Network access for all students	6.1	6.2	6.5	6.2	6.2	5.7	5.5
Managing dial-up access from off campus users	4.0	5.0	5.2	4.0	3.8	3.1	5.1
Network printing	5.2	4.6	5.5	5.2	5.4	5.2	5.9
Digital image libraries/archives	4.5	5.0	5.5	4.4	4.3	4.4	5.0
Creating plug & play network for notebook computer users	4.4	5.1	5.8	4.6	4.3	3.5	5.4
Network computers/thin client computing strategies	3.5	4.1	4.3	3.4	3.3	3.3	4.9
Network security	6.3	6.5	6.8	6.5	6.2	6.0	6.5
ATM	3.5	4.1	3.4	3.9	2.6	3.9	3.4
Gigabit ethernet	5.4	6.1	6.6	5.9	4.9	5.0	4.4
Electronic commerce	4.3	5.3	5.4	4.6	3.7	4.3	3.7
Wireless networks	4.9	5.7	5.8	5.1	4.7	4.3	4.1
e-mail accounts for alumni	3.5	3.8	4.2	3.5	3.9	2.3	3.4
User privacy	5.5	5.9	6.3	5.8	5.3	4.9	6.1
Making campus networks accessible to PDA devices	3.7	4.2	4.9	3.6	3.5	3.4	4.1
Are network issues more or less important this year than last?							
More important	57.5	52.4	61.9	59.2	56.3	56.7	87.5
Less important	1.8	-	4.8	1.6	2.9	1.0	-
About the same	40.7	47.6	33.3	39.2	40.8	42.3	12.5
Primary medium for campus backbone/network							
Linking buildings							
Fiber	88.2	75.0	95.2	90.5	92.1	85.4	85.7
Gigabit Ethernet	8.2	20.3	4.8	8.7	6.3	4.9	-
Std. Ethernet/Coax	1.2	-	-	-	1.1	3.9	-
Twisted pair	0.8	1.6	-	-	-	2.9	-
Other	1.2	3.1	-	0.8	-	2.9	-
None	0.4	-	-	-	0.6	-	14.3
Within buildings							
Fiber	16.9	19.4	23.8	16.8	10.9	21.2	42.9
Gigabit Ethernet	10.4	9.7	9.5	12.0	11.4	8.7	-
Std. Ethernet/Coax	23.3	14.5	9.5	28.8	20.6	28.9	28.6
Twisted pair	48.0	53.2	57.1	40.0	57.1	39.4	28.6
Other	1.4	3.2	-	2.4	-	1.9	-
None	-	-	-	-	-	-	-
How well developed are network connections and instructional							
Percentage of faculty connected to the campus network/have Internet access	97.0	97.0	97.8	97.2	98.2	95.6	78.1
Percentage of classrooms connected to the campus network/have Internet access	68.3	63.8	80.0	67.0	72.1	65.0	46.9
Percentage of classrooms with fixed computer projection capacity	23.5	24.1	27.2	23.0	24.5	22.0	7.1
Percentage of dormitory beds with network connection	73.3	82.8	97.5	76.0	84.5	15.1	19.2

Mean ratings and percentages by campus category.
**Scale from 1="Not Important" to 7="Very Important".*
+Columns may not total 100% since responses are not mutually exclusive.

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CAMPUS COMPUTING, 2000

	All Institutions	Universities		4-Year Colleges		2-Year Colleges	
		Public	Private	Public	Private	Public	Private
WEB AND NETWORKING ISSUES (Continued)							
Current transmission capacity of your campus network							
High speed video							
Functional now	43.0	66.7	61.9	52.5	26.7	39.2	33.3
Coming A/Y 2000-01	10.8	11.1	14.3	11.0	9.1	13.4	-
Scheduled for A/Y 2001-02	12.5	11.1	14.3	12.7	11.5	12.4	33.3
Not applicable	33.8	11.1	9.5	23.7	52.7	35.1	33.3
ATM							
Functional now	33.7	66.7	66.4	38.1	17.1	32.3	-
Coming A/Y 2000-01	4.5	5.0	-	7.6	2.4	5.2	-
Scheduled for A/Y 2001-02	2.8	1.7	-	0.9	2.4	7.3	-
Not applicable	59.0	26.7	31.6	53.4	78.1	55.2	100.0
Local area wireless networks							
Functional now	29.6	51.6	57.1	28.2	23.4	19.8	42.9
Coming A/Y 2000-01	22.5	34.4	19.1	25.6	24.0	9.4	14.3
Scheduled for A/Y 2001-02	12.6	9.4	9.5	15.4	13.2	11.5	-
Not applicable	35.3	4.7	14.3	30.8	39.5	59.4	42.9
Full campus wireless networks							
Functional now	3.8	5.4	-	3.6	4.3	2.2	14.3
Coming A/Y 2000-01	3.8	8.9	5.0	3.6	1.8	4.4	-
Scheduled for A/Y 2001-02	17.2	26.8	35.0	19.1	15.2	7.6	14.3
Not applicable	75.3	58.9	60.0	73.6	78.7	85.9	71.4
Percentage of users routinely using the Internet							
At least once a week							
Undergraduates	82.5	84.7	92.2	85.2	89.3	65.0	71.8
Graduate students	74.2	85.0	87.6	81.8	73.0	7.4	24.8
Faculty	82.9	83.7	84.8	85.7	85.8	74.0	62.8
Administrators	83.3	80.5	86.6	85.8	84.4	79.4	77.6
Support staff	80.6	82.2	87.2	82.9	79.9	77.0	60.8
At lease once a day							
Undergraduates	63.0	65.6	69.6	64.3	71.7	43.4	55.8
Graduate students	56.9	68.6	69.5	62.1	53.0	6.5	18.8
Faculty	66.6	66.4	62.4	69.5	72.9	53.1	54.2
Administrators	70.3	66.9	64.9	71.9	73.3	65.6	74.8
Support staff	67.8	68.9	63.2	69.6	68.6	64.0	57.5
Does your institution provide off-campus dial-up (ISP) services for:							
Students							
No	53.8	14.3	20.0	48.3	59.0	86.7	42.9
Yes, without a fee	37.4	65.1	65.0	43.2	36.8	9.2	-
Yes, for a fee	8.8	20.6	15.0	8.5	4.2	4.1	57.1
Faculty							
No	44.4	14.6	12.5	37.0	48.5	73.0	33.3
Yes, without a fee	48.5	67.3	68.8	56.5	47.8	24.7	16.7
Yes, for a fee	7.1	18.2	18.8	6.5	3.7	2.3	50.0

Means and percentages by campus category

CAMPUS COMPUTING, 2000

	All Institutions	Universities		4-Year Colleges		2-Year Colleges	
		Public	Private	Public	Private	Public	Private
ORGANIZATION, PLANNING AND IMPACT ISSUES							
Is your campus part of a multicampus system with shared computing	45.3	64.6	33.3	60.0	17.8	65.7	-
Academic and administrative computing are:							
Separate units	32.8	29.2	23.8	30.4	36.2	36.8	12.5
One single unit	67.2	70.8	76.2	69.6	63.8	63.2	87.5
Has your institution reorganized IT units in past 2 years?*							
Academic computing	39.5	38.1	47.6	41.5	41.7	29.8	75.0
Administrative computing	36.7	41.3	42.9	33.1	38.5	31.7	62.5
Libraries	19.2	13.8	20.0	16.1	17.7	25.2	62.5
Do you anticipate a reorganization of IT units in the 2 years?							
Academic computing	33.2	46.0	52.4	33.6	30.5	25.0	28.6
Administrative computing	30.7	39.7	38.1	28.3	27.7	31.1	14.3
Libraries	20.1	17.9	36.8	17.1	21.4	17.2	25.0
The heads of the academic and administrative units report to:							
Academic computing							
President	7.9	-	-	7.3	3.6	22.1	12.5
Provost	25.2	21.5	23.8	26.0	33.9	13.5	25.0
CIO or CTO	37.5	60.0	61.9	41.5	33.3	20.2	37.5
Other vice provost/vice president	21.7	18.5	14.3	21.1	21.4	26.0	12.5
Dean	7.7	-	-	4.1	7.7	18.3	12.5
Administrative computing							
President	10.8	3.1	-	9.9	7.2	23.8	25.0
Provost	11.9	12.5	14.3	10.7	15.1	7.6	12.5
CIO or CTO	38.0	57.8	61.9	44.6	33.1	21.0	37.5
Other vice provost/vice president	35.2	26.6	23.8	33.1	41.6	35.2	25.0
Dean	4.1	-	-	1.7	3.0	12.4	-
Libraries							
President	2.5	1.6	-	-	1.8	7.7	-
Provost	58.2	71.0	81.0	66.1	63.3	30.8	50.0
CIO or CTO	8.4	14.5	4.8	9.9	7.8	4.8	12.5
Other vice provost/vice president	17.7	9.7	14.3	14.9	12.1	33.7	12.5
Dean	13.2	3.2	-	9.1	15.1	23.1	25.0
Does institution have a chief information/technology officer?							
No	34.1	20.3	23.8	24.2	42.1	44.3	37.5
Currently under discussion	7.0	7.8	4.8	6.5	7.0	6.6	12.5
Yes	58.8	71.9	71.4	69.4	50.9	49.1	50.0
What academic and operational units report to the CIO/CTO?*							
Academic computing	54.5	76.9	66.7	63.5	46.1	42.6	50.0
Administrative computing	55.7	72.3	57.1	65.9	47.8	47.2	50.0
Libraries	13.9	18.5	4.8	11.9	15.7	12.0	25.0
Telecommunications	47.3	72.3	61.9	57.1	36.5	35.2	37.5
Who provides tech support for most departmental computer labs?							
Individual department	25.9	69.8	47.6	29.3	11.8	14.6	-
Central IT service unit	74.1	30.2	52.4	70.7	88.2	85.4	100.0
How does your institution deal with the "life cycle"?							
One time allocation	18.3	25.0	10.0	21.1	12.6	22.9	12.5
Developing budget	28.9	45.3	25.0	31.7	19.5	30.5	37.5
Have budget	52.8	29.7	65.0	47.2	67.8	46.7	50.0

Means and percentages by campus category.

**Columns may not total 100% since responses are not mutually exclusive.*

	All Institutions	Universities		4-Year Colleges		2-Year Colleges	
		Public	Private	Public	Private	Public	Private
ORGANIZATION, PLANNING AND IMPACT ISSUES (Continued)							
How well does your institution prepare students for the technology							
Academic field/program							
Biological and physical sciences	3.7	3.9	4.0	3.8	3.7	3.3	3.2
Business	3.9	4.2	4.2	4.0	3.9	3.6	4.4
Education	3.5	3.8	3.5	3.8	3.5	3.2	2.9
Engineering	3.8	4.3	4.5	3.9	3.5	3.5	3.4
Fine/performing arts	3.3	3.7	3.6	3.4	3.4	3.0	2.7
Humanities	3.2	3.4	3.4	3.3	3.2	3.1	2.6
Mathematics	3.7	3.9	4.0	3.8	3.8	3.4	3.5
Social science	3.4	3.6	3.5	3.4	3.4	3.1	3.2
Occupational programs	3.6	3.6	3.5	3.5	3.6	3.8	3.5
Overall campus preparation	3.7	3.9	3.8	3.7	3.6	3.5	3.1
How well prepared are faculty to use technology as a resource?							
For instruction							
Biological and physical sciences	3.6	3.7	3.5	3.6	3.8	3.4	3.5
Business	3.7	3.9	3.8	3.7	3.8	3.5	4.3
Education	3.3	3.6	3.2	3.4	3.4	3.0	3.4
Engineering	3.6	3.9	4.3	3.8	3.5	3.4	3.4
Fine/performing arts	3.1	3.2	3.5	3.1	3.1	3.0	2.7
Humanities	3.1	3.3	3.1	3.0	3.1	3.0	3.0
Mathematics	3.6	3.6	3.6	3.6	3.8	3.4	3.7
Social science	3.2	3.4	3.2	3.2	3.3	3.0	3.3
Occupational programs	3.5	3.4	3.2	3.3	3.4	3.8	3.7
Overall campus preparation	3.4	3.5	3.3	3.4	3.4	3.4	3.3
For scholarship & research							
Biological and physical sciences	3.7	4.0	4.1	3.8	3.8	3.1	2.8
Business	3.5	3.9	4.0	3.6	3.6	3.0	3.3
Education	3.3	3.6	3.5	3.4	3.2	2.8	2.8
Engineering	3.6	4.1	4.5	3.6	3.5	3.0	3.0
Fine/performing arts	3.1	3.3	3.5	3.1	3.1	2.8	2.6
Humanities	3.1	3.4	3.5	3.1	3.2	2.9	2.7
Mathematics	3.5	3.7	4.1	3.6	3.6	3.0	2.8
Social science	3.3	3.7	3.6	3.3	3.4	2.9	2.7
Occupational programs	3.3	3.4	3.5	3.3	3.3	3.2	3.2
Overall campus preparation	3.4	3.7	3.8	3.4	3.4	3.1	2.7
Internet & Web resources							
Biological and physical sciences	3.7	3.9	3.8	3.9	3.8	3.4	2.8
Business	3.7	4.0	4.2	3.8	3.8	3.4	3.7
Education	3.5	3.8	3.9	3.7	3.4	3.0	2.8
Engineering	3.6	4.0	4.4	3.7	3.4	3.2	3.0
Fine/performing arts	3.2	3.6	3.7	3.2	3.3	3.0	2.4
Humanities	3.3	3.5	3.7	3.3	3.3	3.1	2.9
Mathematics	3.6	3.7	4.0	3.7	3.7	3.2	3.2
Social science	3.4	3.7	3.8	3.5	3.5	3.1	3.0
Occupational programs	3.5	3.5	3.7	3.4	3.5	3.5	3.5
Overall campus preparation	3.5	3.7	3.9	3.6	3.6	3.3	3.0

Means by campus category.
Scale from 1="Poor" to 5="Excellent".

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Appendix A

Survey Methodology

The 2000 National Survey of Computing and Information Technology in American Higher Education was designed to collect information about campus planning, policies, and procedures affecting the use of desktop computers (i.e., personal computers and workstations) from colleges and universities in the United States (including Alaska and Hawaii).

The 2000 questionnaire was mailed to a representative sample of 1,176 two- and four-year US colleges and universities in June, 2000. The sampling design focused on public and private two- and four-year colleges and universities, omitting the small branch campuses of multi-campus districts and some very small private two- and four-year college (i.e., institutions enrolling under 200 students).* Proprietary schools were also excluded from the survey sample.

Questionnaires were mailed to the institution's chief academic computing officer. In those instances where it was not possible to identify, by name, an individual responsible for academic or administrative computing, the survey was mailed to the chief academic officer of the institution.

A second wave of surveys were mailed to non-responding institutions late in August, 2000. A total of 506 institutions (43 percent) completed usable questionnaires by October 10, 2000, the closing date for data analysis. The number of colleges and universities represented in the 2000 Survey report, by type of institution, are shown below.

Public Universities	65
Private Universities	21
Public Four-Year Colleges	126
Private Four-Year Colleges	178
Public Two-Year Colleges	108
Private Two-Year Colleges	8

*Data from the US Department of Education reveal that 12.5 percent (490) of the nation's 3,913 accredited, degree-granting two- and four-year colleges and universities enroll under 200 students. These institutions account for some 56,700 (3.9 pct.) of the nation's 14.54 million college students. In contrast, the 408 colleges and universities that enroll 10,000 or more students represent just 11.5 of the total number of US degree-granting institutions yet account for 49.3 percent of total headcount enrollment., some 7.17 million students. (source: *Digest of Education Statistics 2000*. US Department of Education, 2000, table. 216; http://nces.ed.gov/pubs2001/digest/dt216.html)

Appendix B

The 2000 Campus Computing Survey Questionnaire

CAMPUS COMPUTING, 2000

THE NATIONAL SURVEY OF INFORMATION TECHNOLOGY IN HIGHER EDUCATION

www.campuscomputing.net

Dear Colleague:

This year marks the 11th national survey of computing and information technology. The annual Campus Computing Survey is part of a continuing national project focused on campus policies, plans, and procedures affecting academic computing in two- and four-year colleges and universities. Your responses contribute to a better understanding of the ways campuses across the country are planning for and using information technology resources to enhance instruction and scholarship.

Please take the time to complete this questionnaire. All responses will be treated in a confidential manner. Thank you for your assistance.

MAILING LABEL

Kenneth C. Green
Visiting Scholar
Claremont Graduate University, Claremont, CA
818.990.2212 cgreen@campuscomputing.net

Please attach a business card with the correct name, title, and mailing address of the survey respondent. Updated addresses will be used to send you a copy of the 2000 survey report.

Please respond to all questions based on institutional policies, i.e., policies that apply broadly to students, faculty, administrators and staff in all units of your institution.

A. General Campus Policies About Computing and Information Technology

1. Does your campus have a formal policy promoting or mandating computers/IT resources for
   - curriculum utilization? ① no ② yes
   - undergraduates? ① no ② yes
   - graduate students? ① no ② yes
   - distance education? ① no ② yes
2. Does your institution have a *computer instruction* or *computer competency* requirement for all undergraduates?
   ① no ② yes
3. Does your institution have a special computer use/technology fee or annual/term computer use charge for all students?
   ① no ② yes *if yes,* total annual (full-time) student fee or charge for 2000-2001 $ |__|__|__|__|
4. Does your campus have a code of conduct for campus e-mail accounts and individual Web pages?
   ① no ② yes
5. Please check the *Operating Systems/Interfaces* recommended or supported by your institution:
   - ❑ Macintosh
   - ❑ UNIX
   - ❑ Solaris
   - ❑ Linux
   - ❑ Windows 95/98
   - ❑ Windows NT Workstation
   - ❑ Windows 2000
   - ❑ *None* (My campus does not recommend a specific operating system or interface.)
6. Does your institution *require* or *strongly recommend* computer ownership? *(please check all that apply)*
   - for all students ① no ② recommend ③ require
   - for students in specific disciplines or programs ① no ② recommend ③ require
   - for students in individual academic units or schools ① no ② recommend ③ require
7. Does your institution (or individual units or programs) specifically recommend a particular brand or products for

	hardware	software
students?	① no ② yes	① no ② yes
faculty?	① no ② yes	① no ② yes
administrators/staff?	① no ② yes	① no ② yes

If you answered "yes" to any part of #7 please go on to #8; otherwise, please go on to #9.

8. Please check the brand(s)/kinds(s) of computer system(s) generally recommended by your institution:

Apple/Macintosh	Windows Compatibles	UNIX Systems	
❑ G-4 desktop systems	❑ Pentium II class systems	❑ Compaq	❑ HP
❑ iMac desktop systems	❑ Pentium III-class systems	❑ IBM	❑ Silicon Graphics
❑ iBooks/PowerBooks	❑ Pentium II-class notebooks	❑ Sun	
	❑ Pentium III-class notebooks	❑ Other? _____	

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B. HARDWARE AND SOFTWARE RESALE POLICIES AND PROGRAMS

9. Does your institution have a special pricing or resale agreement with one or more *technology* vendors?

hardware	software	
①	②	no, we do not have any kind of computer resale program. *(skip to item 10)*
①	②	no, we do not have a special [illegible] through an on-campus [illegible]
①	②	yes, for products sold through the campus bookstore.
①	②	yes, for [illegible]
①	②	yes, for products sold by special agreement with an off-campus dealer.
①	②	yes, for products sold [illegible] vendors.

10. Does your institution *require* computer buyers to purchase software as part of the resale program?
① no ② strongly encouraged but not required ③ required

11. Does your institution have a written policy regarding the *duplication of copyrighted software/software piracy?*
① no ② no, but under development ③ yes (effective date:) |__|__|__|__|

C. ACADEMIC & INSTRUCTIONAL COMPUTING POLICIES, PROCEDURES & RESOURCES

12. Does your campus/institution

have a formal plan for integrating information technology into the curriculum?	① no	② yes
have [illegible]	① no	② yes
provide any formal support or assistance (e.g., funding, release time, technical assistance) to help faculty who wish to develop *instructional* software/courseware?	① no	② yes
provide any [illegible] assistance) to [illegible]	① no	② yes
have a policy or program for rewarding courseware development or providing incentives for faculty to develop instructional software/courseware?	① no	② yes
have a [illegible] use of [illegible]	① no	② yes
have one or more agreements or licenses for on-campus duplication and distribution of desktop/notebook computer software products?	① no	② yes
have a [illegible]	① no	② yes
have a formal plan for using the Internet and Web resources in distance education?	① no	② yes
have a [illegible] on [illegible]		② yes
have a formal program to recognize and reward the use of information technology as part of the routine faculty review and promotion process?	① no	② yes
[illegible]	① no	② yes
have a formal program to assess the impact of IT on instruction and learning outcomes?	① no	② yes
have a [illegible] and [illegible]	① no	② yes
have a formal program to provide supplemental IT training for IT staff?	① no	② yes

13. Does your institution have a strategic plan for

information technology	① no	② currently preparing a plan	③ yes, we have a plan
[illegible]	① no	② currently preparing a plan	③ yes, we have a plan
distance education	① no	② currently preparing a plan	③ yes, we have a plan
campus portal services	① no	② currently preparing a plan	③ yes, we have a plan

14. Has your institution established a specific *single product standard* for any of the following (i.e., your campus supports only one product):

desktop/notebook computer operating system
① no *if yes,* O/S: ② Macintosh ③ Win 95/98 ④ Win NT Workstation ⑤ Win 2000 Professional

desktop/notebook product or manufacturer
① no *if yes,* product: ② Apple ③ Compaq ④ Dell ⑤ Gateway ⑥ HP ⑦ IBM ⑧ other

Web browser
① no *if yes,* product: ② Microsoft Internet Explorer ③ Netscape Navigator ④ other

groupware
① no *if yes,* product: ② Lotus Notes ③ Microsoft Exchange ④ Novell Groupwise ⑤ other

course management system
① no *if yes,* product: ② Blackboard ③ eCollege ④ Lotus Learning Space ⑤ WebCT ⑥ other

please go on to the next page >>>

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15. What academic and institutional resources and services are currently available on your campus Web site (or portal service)?

- ❑ [illegible]
- ❑ Financial aid application
- ❑ [illegible]
- ❑ Program/major/degree requirements
- ❑ [illegible]
- ❑ Course add/drop options
- ❑ [illegible]
- ❑ Online Courses (i.e., full course online)
- ❑ [illegible]
- ❑ Interlibrary loan services
- ❑ [illegible]
- ❑ Course reserves
- ❑ [illegible]
- ❑ IT support resources
- ❑ [illegible]
- ❑ Instructional software
- ❑ Faculty/staff directory
- ❑ Student newspaper
- ❑ Student handbook
- ❑ Athletic event schedule
- ❑ Alumni information/services
- ❑ Press releases/media services
- ❑ Campus book store
- ❑ Customizable student home page

D. Future Issues Affecting Campus Computing

16. As you think about the future of computing and information technology at your institution, please indicate how important you see the following items in the overall campus computing/information technology environment and IT policy and planning over the next 2-3 years.

	Not Important						Very Important
Operating System/Interface/Development Tools							
Windows '98	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Windows 2000 Prof.	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Windows CE	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Macintosh O/S X server	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Unix	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Hardware							
Notebook computers	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
UNIX Workstations	①	②	③	④	⑤	⑥	⑦
[illegible] (NCs)	①	②	③	④	⑤	⑥	⑦
DVD	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Instructional Applications and Resources							
Developing instructional software	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Using instructional software as a supplement to classes	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Internet resources for instruction	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Web pages for classes	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Computer-based classroom	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦

	Not Important						Very Important
Networking & Internet/Web Issues & Resources							
Merging data & telecommunication networks	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Voice over IP	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Lotus Domino	①	②	③	④	⑤	⑥	⑦
Microsoft Exchange	①	②	③	④	⑤	⑥	⑦
Java	①	②	③	④	⑤	⑥	⑦
Shockwave	①	②	③	④	⑤	⑥	⑦
Quicktime	①	②	③	④	⑤	⑥	⑦
Real Player	①	②	③	④	⑤	⑥	⑦
Gigabit Ethernet	①	②	③	④	⑤	⑥	⑦
ATM	①	②	③	④	⑤	⑥	⑦
Adobe Acrobat	①	②	③	④	⑤	⑥	⑦
Internet 2	①	②	③	④	⑤	⑥	⑦
Internet Videoconferencing	①	②	③	④	⑤	⑥	⑦
Network security	①	②	③	④	⑤	⑥	⑦
E-commerce on the Web	①	②	③	④	⑤	⑥	⑦
Open Source software	①	②	③	④	⑤	⑥	⑦
Student portal services	①	②	③	④	⑤	⑥	⑦
IMS Standards	①	②	③	④	⑤	⑥	⑦
Course mgmt software	①	②	③	④	⑤	⑥	⑦
User Support Services/Campus IT Services							
On-line IT training	①	②	③	④	⑤	⑥	⑦
On-line technical support	①	②	③	④	⑤	⑥	⑦
Computer resale program	①	②	③	④	⑤	⑥	⑦
Software licensing programs [illegible]	①	②	③	④	⑤	⑥	⑦
Advertising on the student portal site	①	②	③	④	⑤	⑥	⑦
Computer repair services	①	②	③	④	⑤	⑥	⑦
Alumni services via the campus Web site	①	②	③	④	⑤	⑥	⑦

17. How would you rate the "technology infrastructure" at your institution?

	poor						excellent
computer networks and data communication	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
video	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
on-line reference resources in the campus library/library system	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
e-commerce capacity	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
network security against hackers and virus attacks	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
IT training for students	①	②	③	④	⑤	⑥	⑦

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18. Many campuses find themselves facing enrollment shifts, shifting financial resources, growing demand for IT services and increasing IT expenditures. How is your campus addressing these issues?

	Doing This Already	*Beginning in 2000-01 Year*	*Reviewing For 2000-01 Year*	*Decided Not To Do This*
Reducing purchases of computer technology	①	②	③	④
[illegible]	①	②	③	④
Requiring a computer/IT fee for all students	①	②	③	④
[illegible]	①	②	③	④
More active recycling of older equipment to other departments and units	①	②	③	④
[illegible]	①	②	③	④
Reducing hours in public access facilities	①	②	③	④
[illegible]	①	②	③	④
Reorganizing operations (e.g., combining units to coordinate staffing)	①	②	③	④
[illegible]	①	②	③	④
Using info. technology (IT) to reduce instructional costs	①	②	③	④
[illegible]	①	②	③	④
Outsourcing Internet access/ISP services commercial providers (e.g., AOL, AT&T, MCI)	①	②	③	④
[illegible]	①	②	③	④
Outsourcing student portal services to commercial providers	①	②	③	④

E. Strategic, Budget, and Personnel Issues

19. As you look at the future of computing on your campus, please indicate how important the following computing/information technology issues will be in the overall campus computing environment over the next 2-3 years.

	Not Important						*Very Important*
Assessing the benefits of existing investments in computing and technology resources	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Providing incentives and rewards for faculty to support technology integration into the curriculum	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Faculty concerns about the benefits of computing in the curriculum	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Developing/strengthening vendor relationships	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Establishing/maintaining campus-wide standards for *hardware*	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Operating a computer resale program for students and faculty	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Using Internet/Web resources in instruction	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Using info. technology resources to enhance our distance education program	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Negotiating site licensing agreements with academic publishers	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Developing campus policies for WWW-based intellectual property	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Retaining current IT personnel, given off-campus competition	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
WWW-based instructional/course management systems	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Providing a "campus portal" for Web-based student services	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Surveying students and faculty about IT issues and services	①	②	③	④	⑤	⑥	⑦

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20. Compared to last year (1999-2000), how do you expect this year's budget (2000-01) to change with regard to academic computing overall, and to institutional purchases of desktop/notebook computers and network servers and software?

	Reduced ≥ 5%	*Reduced 1-5%*	*Reduced 1-3%*	*No Change*	*Increased 1-3%*	*Increased 1-5%*	*Increased >5%*
Total academic computing budget	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Purchases of computers by academic computing units	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
All institutional purchases of desktop/notebook computers	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Server software & related products	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦

21. Did your budget for academic computing experience a mid-year cut during 1999-2000?
① no ② yes *If yes,* by what percentage? |__|__|%

22. What is the total Academic Computing budget for A/Y 2000-01? $ |__|__|, |__|__|__|, |__|__|__|

23. Allocation of the IT/Academic Computing Budget (estimated percentages; numbers may not equal 100% because of the overlap of categories, such as personnel and user support):

|__|__|% hardware |__|__|% software |__|__|% personnel
|__|__|% content licenses |__|__|% user support |__|__|% network service/support

24. The Academic Computing Budget for this campus represents what percentage of *total* institutional expenditures on information technology/academic computing? |__|__|__| percent

25. Current replacement cycle for institutionally-owned desktop & notebook computers (number of years):
student labs ① ② ③ ④ ⑤ faculty offices ① ② ③ ④ ⑤ administrative offices ① ② ③ ④ ⑤

F. Web and Networking Issues

26. How important are the following issues in discussions about and planning for networking on your campus?

	Not important						*Very important*
Supporting instructional labs and clusters	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
WWW/Network access for all students	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Network printing	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Creating a "plug & play" network for notebook computer users	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Network security	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Gigabit ethernet	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
Wireless networks	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦
User privacy	①	②	③	④	⑤	⑥	⑦
[illegible]	①	②	③	④	⑤	⑥	⑦

27. Would you say that network issues are more or less important than last year, or about the same?
① More important ② Less important ③ About the same

28. What is the primary medium for your campus backbone/network?
Linking buildings
① Fiber ② Gigabit Ethernet ③ Std. Ethernet/Coax ④ Twisted Pair ⑤ Other:_____ ⑥ none
Within buildings
① Fiber ② Gigabit Ethernet ③ Std. Ethernet/Coax ④ Twisted Pair ⑤ Other:_____ ⑥ none

29. How well-developed are your institutional network connections and instructional infrastructure?
|__|__|__| percentage of faculty offices that are connected to the campus network/have Internet access?
|__|__|__| percentage of classrooms that are connected to the campus network/have Internet access?
|__|__|__| percentage of classrooms that have fixed/permanent computer projection capacity?
|__|__|__| percentage of dormitory beds that have a network connection ("wire to the pillow")?

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30. What is the current transmission capacity of your campus network?

	functional now	coming A/Y 2000-01	scheduled for A/Y 2001-02	not applicable
high speed video	①	②	③	④
ATM	①	②	③	④
Local area wireless networks	①	②	③	④
Full campus wireless networks	①	②	③	④

31. What is your best estimate of the percentage of campus users who routinely use the Internet?

	at least once a week	at least once a day
undergraduates?	___ %	___ %
graduate students	___ %	___ %
faculty	___ %	___ %
administrators	___ %	___ %
support staff	___ %	___ %

32. Does your institution provide off-campus dial-up (ISP) services for:
Students ① no ② yes, without fee ③ yes, for a fee *Faculty* ① no ② yes, without fee ③ yes, for a fee

F. VENDOR ASSESSMENTS

33. What is your assessment of the companies that sell technology products and services to the higher education market?
Ratings: ① Strongly Disagree (SD) ② Disagree ③ Agree ④ Strongly Agree (SA)

	My Campus Currently Does Business With This Company	*Has Appropriate Products for Campus Users* SD D A SA	*Understands Computing Issues Affecting My Campus* SD D A SA	*Will Play an Important Role in our Computing Plans for the Next 2-3 Years* SD D A SA
Hardware Companies				
Apple	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
Compaq	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
Dell	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
Gateway	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
Hewlett Packard	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
IBM	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
Silicon Graphics	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
Sun Microsystems	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
Toshiba	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
Software, Instructional Services, Networking, Administrative Systems, and Telecommunications				
Academic Systems	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
Adobe Systems	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
AOL/Netscape	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
Blackboard	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
Campus Pipeline	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
Cisco Systems	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
CMDS	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
COLLEGIS	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
Corel	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
Datatel	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
eCollege	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
Eduprise	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
Lotus Development Corp.	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
Lucent Technologies	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
Macromedia	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
Microsoft	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
Novell	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
Nortel	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
Oracle	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
PeopleSoft	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
SCT	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
Symantec	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
WebCT	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④
3 Com	❑	① ② ③ ④	① ② ③ ④	① ② ③ ④

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H. ORGANIZATION, PLANNING, AND IT IMPACT ISSUES

34. Is your campus part of a multicampus system with shared computing resources: ① no ② yes

35. Academic and administrative computing on your campus are: ① separate units ② one single unit

36. Has your institution reorganized information services units within the past two years?
Academic Computing ① no ② yes Administrative Computing ① no ② yes Libraries ① no ② yes

37. Do you anticipate a reorganization of information services units within the next two years?
Academic Computing ① no ② yes Administrative Computing ① no ② yes Libraries ① no ② yes

38. How does your campus coordinate academic and administrative computing operations? The heads of each unit report to:

Academic Computing	*Administrative Computing*	*Libraries*
① president	① president	① president
② provost (chief academic officer)	② provost (chief academic officer)	② provost (chief academic officer)
③ CIO or CTO	③ CIO or CTO	③ CIO or CTO
④ other vice provost/vice president	④ other vice provost/vice president	④ other vice provost/vice president
⑤ dean	⑤ dean	⑤ dean

39. Does your institution have a chief information officer/chief technology officer (CIO/CTO)?
① no (go to #41) ② no, but currently under discussion (go to #41) ③ yes (to go #40)

40. What academic and operational units report to the CIO/CTO?
❒ academic computing ❒ administrative computing ❒ libraries ❒ telecommunications

41. Which unit provides tech. support for most departmental computer labs: ① individual dept. ② central IT service unit

42. How does your institution deal with the "life cycle" issues affecting the institutional purchase (and upgrading/replacement) of desktop computers for faculty, classrooms, clusters, and labs?
① Most institutional purchases of desktop systems are acquired through a special one-time allocation or appropriation.
② Although we generally purchase equipment on a one-time allocation, we are developing a budget mechanism (or budget planning model) to help us routinely "acquire and retire" new technology.
③ We have a budget mechanism (or budget planning model) to help us routinely "acquire and retire" new technology.

43. From your perspective, how well does your institution prepare your students (i.e., undergraduates) for the technology skills they will need and technology challenges they will encounter over the next decade?

Academic Field/Program	*Poor*				*Excellent*
biological & physical sciences	①	②	③	④	⑤
[illegible]	①	②	③	④	⑤
education	①	②	③	④	⑤
[illegible]	①	②	③	④	⑤
fine & performing arts	①	②	③	④	⑤
[illegible]	①	②	③	④	⑤
mathematics	①	②	③	④	⑤
[illegible]	①	②	③	④	⑤
occupational programs	①	②	③	④	⑤
[illegible]	①	②	③	④	⑤

44. From your perspective, how well prepared are the faculty at your institution to use technology as a resource for instruction and scholarship? To use the Internet and the WWW as a resource for curriculum and instruction?

	For Instruction Poor				Excellent	*For Scholarship & Research* Poor				Excellent	*Internet & Web Resources* Poor				Excellent
biological & physical sciences	①	②	③	④	⑤	①	②	③	④	⑤	①	②	③	④	⑤
[illegible]	①	②	③	④	⑤	①	②	③	④	⑤	①	②	③	④	⑤
education	①	②	③	④	⑤	①	②	③	④	⑤	①	②	③	④	⑤
[illegible]	①	②	③	④	⑤	①	②	③	④	⑤	①	②	③	④	⑤
fine & performing arts	①	②	③	④	⑤	①	②	③	④	⑤	①	②	③	④	⑤
[illegible]	①	②	③	④	⑤	①	②	③	④	⑤	①	②	③	④	⑤
mathematics	①	②	③	④	⑤	①	②	③	④	⑤	①	②	③	④	⑤
[illegible]	①	②	③	④	⑤	①	②	③	④	⑤	①	②	③	④	⑤
occupational programs	①	②	③	④	⑤	①	②	③	④	⑤	①	②	③	④	⑤
[illegible]	①	②	③	④	⑤	①	②	③	④	⑤	①	②	③	④	⑤

please go on to the next page >>>

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I. KEY INFORMATION TECHNOLOGY ISSUES CONFRONTING COLLEGES AND UNIVERSITIES

45. Please indicate the degree to which you agree or disagree with the following statements.
Ratings: ① Strongly Disagree (SD) ② Disagree ③ Agree ④ Strongly Agree (SA)

	SD	D	A	SA
Faculty have unreasonable expectations about user support services.	①	②	③	④
Technology has done much to improve [illegible]	①	②	③	④
We plan to require all our students to own a computer by Fall 2002.	①	②	③	④
Access to Internet 2 by Fall 2001 is [illegible]	①	②	③	④
Colleges should permit commercial advertising on campus web sites/portals.	①	②	③	④
Our adm. systems provide effective support for [illegible]	①	②	③	④
My campus does a good job of planning our short- term and mid-range tech. needs	①	②	③	④

46. The *single most important* information technology issue confronting my institution over the next two or three years is: *(mark only one)*

① Providing online/distance education via the Web
② Providing adequate user support
③ Assisting faculty integrate technology into instruction
④ Financing the replacement of aging hardware/software
⑤ Moving towards campus-wide wireless networks
⑥ Integrating academic and administrative computing
⑦ Providing student portal services
⑧ Integrating eCommerce into campus services

J. CURRENT IT/COMPUTER FACILITIES AND RESOURCES

47. What was the total *headcount* enrollment on your campus as of Spring 2000? |__|__|__|__|__|

48. What is your best estimate of the total number of institutionally-owned desktop/notebook computers and workstations on your campus as of May, 2000? (Please include systems in faculty offices and in labs, clusters, classrooms, residence halls, etc.)
Desktop/notebook computers |__|__|__|__|__| Unix Workstations |__|__|__|__|__|

49. What is your *best estimate* of the percentage of institutionally-owned machines (in both offices and campus labs) that are connected to your campus network or a department network? |__|__|__|%

50. What is your *best estimate* of the total number of *personally-owned* desktop and notebook computers used on your campus as of May, 2000? (Include personally purchased systems owned by students and faculty.) |__|__|__|__|__|

51. What is your *best estimate* of the proportion of individuals in your campus community who have or own desktop or notebook computers? % students |__|__|__| % faculty |__|__|__| % administrators/staff |__|__|__|

52. Estimated total number of desktop/notebook computers (PCs and workstations) purchased by:

	1999-2000	2000-2001
students	|__|__|__|__|__|	|__|__|__|__|__|
faculty (personal & office/project use)	|__|__|__|__|__|	|__|__|__|__|__|
administrators/staff (personal & office/project use)	|__|__|__|__|__|	|__|__|__|__|__|
campus labs, clusters & other instructional use	|__|__|__|__|__|	|__|__|__|__|__|

53. Total number of *computer labs, clusters,* and *classrooms* on your campus as of May, 2000? |__|__|__|

54. How many of these computer labs/clusters/classrooms are specifically dedicated for use by individual departments or units (e.g., writing program, engineering, social science)? |__|__|__|

55. Total number of *computers and workstations* in *all* the labs/classrooms/clusters on your campus as of May, 2000? Computers |__|__|__|__|__| Unix Workstations |__|__|__|__|__|

56. Total number of network servers on your campus? |__|__|__|__|

57. What is your *best estimate* (percentage) of the operating systems now installed on institutionally-owned desktop/notebook computers and network servers? (*example*: 20 pct. use the Mac OS, 25 pct. use Win 95; 30 pct use Win 98).
computers/clients: % Mac |__|__| Win 95/98 |__|__|__| Win NT |__|__|__| Win 2000 |__|__|__| Unix |__|__|__|
network servers: % Mac |__|__|__| Win NT |__|__|__| Win 2000 Server |__|__|__|
Unix |__|__|__| Linux |__|__|__| Novell |__|__|__|

58. Total number (FTE) of IT help desk/technical support personnel (incl. departmental staff)? |__|__|__|

59. Percentage of faculty who have an individual/personal Web page (for the person, not for a class): |__|__|__| pct.

60. What is your *best estimate* of the proportion/percentage of classes that use the following info. tech. resources:

|__|__|__| computer-based classrooms or labs
|__|__|__| computer-based simulations or exercises
|__|__|__| presentation handouts
|__|__|__| electronic mail
|__|__|__| commercial courseware/instructional resources
|__|__|__| Internet resources (from off-campus sources)
|__|__|__| course mgmt. tools for online course resources
|__|__|__| Web pages for class materials & resources

THANK YOU FOR YOUR ASSISTANCE!
PLEASE FOLD AND MAIL IN THE ENCLOSED POSTAGE-PAID ENVELOPE

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Appendix C

Institutions Participating in the 2000 Campus Computing Survey

Abilene Christian University, TX
Albertson College College of Idaho
Albertus Magnus College, CT
Albion College, MI
Albright College, PA
Albuquerque Technical Vocational Institute, NM
Alfred University, NY
Allegany College of Maryland
Allen County Comm. College, KS
Allentown College of St. Francis de Sales, PA
Alverno College, WI
American River College, CA
Amherst College, MA
Ancilla College, IN
Anderson University, IN
Angelina College, TX
Ardmore Higher Education Center, OK
Arizona State University, AZ
Arkansas State University, AR
Atlantic Cape Comm. College, NJ
Aurora University, IL
Austin Community College, TX

Babson College, MA
Baker College, MI
Bakersfield College, CA
Ball State University, IN
Barat College, IL
Barstow College, CA
Bee County College, TX
Belmont Abbey College, NC
Belmont University, TN
Beloit College, WI
Benedict College, SC
Benedictine College, KS
Benedictine University, IL
Berry College, GA
Bethany Lutheran College, MN
Bethel College, MN
Biola University, CA
Birmingham Southern College, AL
Blackburn College, IL
Bladen Community College, NC
Blue Mountain College, MS
Bluefield State College, WV
Boise State University, ID
Bowie State University, MD
Brown University, RI
Brunswick College, GA
Brunswick Community College, NC
Bryan College, TN
Bucks County Comm. College, PA
Bunker Hill Comm. College, MA

Cabrini College, PA
Caldwell College, NJ
Calif Polytechnic State Univ-San Luis Obispo
Calif State Polytechnic Univ-Pomona
Calif State Univ-Chico
Calif State Univ-Fullerton
Calif State Univ-Hayward
Calif State Univ-Humboldt State
Calif State Univ-Long Beach
Calif State Univ-Los Angeles
Calif State Univ-Monterey Bay
Calif State Univ-San Bernardino
Calif State Univ-San Marcos
Calif State Univ-Stanislaus
Calif State University, Bakersfield
Calif State University, Dominguez Hills
Calif State University, Fresno
Calif State University, Northridge
Calif State University, Sacramento
California Baptist College
California Lutheran University
California Maritime Academy
California Univ. of Pennsylvania
Calvin College, MI
Cameron University, OK
Campbellsville College, KY
Canisius College, NY
Casper College, WY
Cedarville College, OH
Centenary College of Louisiana, LA
Central Arizona College
Central College, IA
Central Missouri State University
Chadron State College, NE
Chaffey College, CA
Charleston Southern University, SC
Chipola Junior College, FL
Choppin State College, MD
Chowan College, NC
Christian Heritage College, CA
Christopher Newport College, VA
Claremont McKenna College, CA
Clarkson College, NE
Clemson University, SC
Cleveland State University, OH
Clovis Community College, NM
Coastline Community College, CA
Colby-Sawyer College, NH
Colgate University, NY
College of Charleston, SC
College of Mount St. Joseph, OH
College of St. Catherine, MN
College of St. Scholastica, MN
College of The Holy Cross, MA
College of the Ozarks, MO
Colorado College, CO
Colorado State University
Columbus State University, GA
Concordia CollegeAL
Concordia CollegeNY
Cornell College, IA
County College of Morris, NJ
Craven Community College, NC
Creighton University, NE
CUNY - Manhattan Comm. College NY
Curry College, MA
Cuyahoga Community College, OH
Cypress College, CA

Davidson College, NC
Delaware County Comm. College, DE
Denison University, OH
DePaul University, IL
DePauw University, IN
Dickinson College, PA
Dowling College, NY
Drake University, IA
Duquesne University, PA

Earlham College, IN
East Carolina University, NC
East Tennessee State University
Eastern Mennonite University, VA
Eastern Michigan University, MI
Eastern Wyoming College, WY
Eckerd College, FL
Edinboro University of PA
Edison State Comm. College, OH
Emmanuel College, MA
Emory & Henry College, VA
Fairfield University, CT
Fairmont State College, WV
Ferrum College, VA
Findlandia University, MI
Flathead Valley Comm. College, MT
Florida Atlantic University, FL
Florida State University, FL
Fontbonne College, MO
Fort Lewis College, CO
Fort Scott Community College, KS
Franklin and Marshall College, PA
Franklin College of Indiana, IN
Franklin Pierce College, NH
Frostburg State University, MD

Gallaudet University, DC
Gannon University, PA
Garrett Community College, MD
Gasden State Comm. College, AL
George Mason University, VA
Georgetown College, KY
Georgetown University, DC
Georgia Institute of Technology
Georgia State University
Gettysburg College, PA
Glendale Community College, CA
Gordon College, MA
Grace College, IN
Grand Valley State University, MI
Grays Harbor College, WA
Grinnell College, IA
Grove City College, PA
Guilford College, NC
Gustavus Adolphus College, MN

Hagerstown Junior College, MD
Hamilton College, NY
Harford Community College, MD
Harris-Stowe State College, MO
Harrisburg Area Comm. College, PA
Hartnell College, CA
Hartwick College, NY
Haskell Indian Junior College, KS

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Hastings College, NE
Herkimer County Comm. College, NY
Highland Community College, KS
Horry-Georgetown Tech. College, SC
Houghton College, NY
Huntingdon College, AL

Idaho State University
Illinois Wesleyan University
Imperial Valley College, CA
Indiana State University, Terre Haute
Indiana University at Kokomo
Indiana University Southeast
Indiana University-Purdue University at Fort Wayne
Indiana Wesleyan University
Inver Hills Community College, MN
Iowa Lakes Community CollegeIA
Ithaca College, NY
Ivy Tech Vocational College Lafayette, IN

Johnson & Wales University, RI

Kankakee Community College, IL
Kansas State University, KS
Keene State College, NH
Kennesaw State University, GA
Keystone College, PA

Lake Michigan College, MI
Lakeland CollegeWI
Lakeshore Technical College, WI
Lamar University, TX
Lander University, SC
Lawrence Technologal University, MI
Lawrence University, WI
Lebanon Valley College, PA
Lewis-Clark State College, ID
Lindsey Wilson College, KY
Longwood College, VA
Louisiana College, LA
Louisiana State University, Shreveport
Louisiana Tech University
Loyola Marymount University, CA
Loyola University of Chicago, IL
Lyndon State College, VT

Macalester College, MN
Macomb Community College, MI
Macon State College, GA
Madonna University, MI
Manchester College, IN
Mansfield University of Pennsylvania
Maranatha Baptist Bible College, WI
Marshall University, WV
Martin Community College, NC
Martin Luther College, MN
Martin Methodist College, TN
Marywood University, PA
Mayville State University, ND
Medaille College, NY
Merced College, CA
Mercer University, GA
Mid-State Technical College, WI
Middle Tennessee State University
Millersville University, PA
Milligan College, TN
Mills College, CA
Mississippi College, MS
Missouri Southern State College
Modesto Junior College, CA
Moraine Valley Comm. College, IL
Moravian College, PA
Mount Holyoke College, MA
Mount Wachusett Comm. College, MA
Mt. San Antonio College, CA
Muskingum College, OH

NEI College of Technology, MN
Neosho County Comm. College, KS
North Carolina State University, NC
North Central College, IL
North Dakota State University
North Harris County College District, TX
Northampton County Area Community College, PA
Northcentral Technical College, WI
Northeastern State University, OK
Northern Arizona University
Northern Kentucky University
Northwest Nazarene College, ID
Northwestern Oklahoma State University
Northwestern State Univ. of Louisiana
Northwestern University, IL
Nyack College, NY

Oberlin College, OH
Occidental College, CA
Ohio Northern University, OH
Oklahoma Baptist University
Oregon Institute of Technology
Oregon State University

Pacific Lutheran University, WA
Palo Alto College, TX
Paris Junior College, TX
Pasadena City College, CA
Pasco-Hernando Comm. College, FL
Pepperdine University, CA
Piedmont Technical College, SC
Pitzer College, CA
Polk Community College, FL
Potomac State College of West Virginia University
Presbyterian College, SC

Randolph-Macon Woman's College, VA
Rappahannock Comm. College, VA
Reed College, OR
Richard Bland College, VA
Ridgewater College, MN
Roane State Community College, TN
Rochester Inst. of Technology, NY
Rock Valley College, IL
Roger Williams University, RI
Rowan University, NJ
Rutgers University-New Brunswick, NJ

Saint Francis College, PA
Saint John's University, MN
Saint Leo College, FL
Saint Mary-of-the-Woods College, IN
Salem-Teikyo University, WV
Salisbury State University, MD
San Diego State University, CA
San Francisco State University, CA
San Juan College, NM
Schreiner College, TX
Seminole Community College, FL
Shippensburg University of Pennsylvania
Shoreline Community College, WA
Silver Lake College, WI
Simmons College, MA
Skidmore College, NY
Skyline College, CA
Sonoma State University, CA
South Plains College, TX
Southeastern Baptist Theological Seminary, NC
Southeastern College, FL
Southeastern Illinois College, IL
Southeastern Louisiana University
Southeastern Oklahoma State University
Southern Illinois University at Carbondale
Southern Illinois University at Edwardsville
Southern Methodist University, TX
Southern Polytechnic State University, GA
Southern Wesleyan University, SC
Southwest Missouri State University
St. Charles County Community College, MO
St. Francis College, NY
St. John's College, NM
St. Mary's Univ. of San Antonio, TX
St. Olaf College, MN
Sterling College, KS
Stevens Institute of Technology, NJ
Sullivan County Comm. College, NY
SUNY College at Geneseo
SUNY College at Plattsburgh
SUNY College at Potsdam
SUNY College of Technology - Farmingdale
SUNY-Buffalo
Sweet Briar College, VA

Tacoma Community College, WA
Taft College, CA
Tarleton State University, TX
Tarrant County Junior College, TX
Temple Junior College, TX
Texas A & M University, Corpus Christi
Texas A&M University, Texarkana
Texas Christian University
Texas Woman's University
The College of Saint Rose, NY
Thomas College, ME
Thomas Edison State CollegeNJ
Tidewater Community College, Portsmouth Campus, VA
Towson University, MD
Transylvania University, KY
Tri-State University, IN
Trinity College, CT
Trinity International University, IL
Trinity University, TX
Troy State University at Dothan, AL
Tufts University, MA

Umpqua Community College, OR
Union County College, NJ
United States Coast Guard Academy, CT
United States Naval Academy, MD
University of Maryland, Baltimore County
University of Washington, Tacoma
University of Wisconsin, Platteville

University of Oklahoma Health Science Center
University of Alabama-Birmingham
University of Alaska-CCREEAK
University of Alaska, Prince William Sound Comm. College
University of Arizona
University of Arkansas at Pine Bluff
University of Baltimore, MD
University of California at Berkeley
University of Central Florida
University of Central Oklahoma
University of Chicago, IL
University of Colorado at Boulder
University of Connecticut
University of Dayton,OH
University of Delaware
University of Detroit, MI
University of Evansville, IN
University of GeorgiaGA
University of HawaiiHI
University of Houston, Clear Lake
University of Idaho
University of Illinois, Urbana-Champaign
University of Iowa
University of Kansas
University of Kentucky
University of Kentucky, Somerset Community College
University of La Verne, CA
University of Louisville, KY
University of Maine at Farmington
University of Maine at Presque Isle
University of Maryland - University College
University of Maryland at Baltimore
University of Maryland, Eastern Shore
University of Maryland, College Park
University of Memphis, TN
University of Michigan-Ann Arbor
University of Michigan, Dearborn
University of Minnesota, Duluth
University of Minnesota, Morris
University of Missouri, Columbia
University of Missouri, Kansas City
University of Missouri, Saint Louis
University of Nebraska-Kearney
University of Nevada-LasVegas
University of New Mexico
University of New Mexico-Gallup
University of New Mexico-Valencia Campus
University of North Carolina-Asheville
University of North Carolina-Chapel Hill
University of North Carolina-Greensboro
University of North Dakota-Lake Region
University of North Texas
University of Northern Iowa
University of Notre Dame, IN
University of Oklahoma
University of OregonOR
University of Pennsylvania
University of PittsburghPA
University of Pittsburgh at Titusville
University of Portland, OR
University of Puget Sound, WA
University of Rhode Island
University of Richmond, VA
University of San Diego, CA
University of San Francisco
University of Science and Arts of Oklahoma
University of South Carolina at Union
University of South Carolina, Columbia
University of South Dakota
University of Southern California
University of Southern Colorado
University of Southern Mississippi
University of Tennessee, Chattanooga
University of Tennessee, Memphis
University of Texas at Austin
University of Texas-Dallas
University of the Ozarks, AR
University of Utah
University of Virginia-Main Campus
University of West Florida
University of Wisconsin Center - Manitowoc County
University of Wisconsin Center-Sheboygan County
University of Wisconsin Center-Waukesha County
University of Wisconsin-Eau Claire
University of Wisconsin-Green Bay
University of Wisconsin-La Crosse
University of Wisconsin-Madison
University of Wisconsin-Milwaukee
University of Wisconsin-Oshkosh
University of Wisconsin-Parkside
University of Wisconsin-River Falls
University of Wisconsin-Stevens Point
University of Wisconsin-Stout
University of Wisconsin-WhitewaterWI
Utah State University
Valdosta State University, GA
Valley City State University, ND
Valparaiso University, IN
Vassar College, NY
Ventura College, CA
Villa Maria College of Buffalo, NY
Villanova University, PA
Vincennes University, IN
Virginia Commonwealth University
Virginia Intermont College
Virginia Polytechnic Institution & State University
Virginia State University

Wagner College, NY
Warner Southern College, FL
Wartburg College, IA
Washington and Lee University, VA
Washington State University
Webber College, FL
Webster University, MO
Wellesley College, MA
West Chester University of Pennsylvania
West Texas A&M University
West Virginia University
Western Carolina University, NC
Western Connecticut State University
Western Iowa Tech. Comm. College
Western Kentucky University
Western New England College, MA
Western Oklahoma State College
Western Piedmont Comm. College, NC
Western State College of Colorado
Westfield State College, MA
Westmont College, CA
Wheaton College, IL
Whitman College, WA
Wichita State University, KS
Widener University, PA
Winthrop University, SC
Wisconsin Lutheran College, WI
Wittenberg University, OH
Woodbury University, CA
Worcester Polytechnic Institute, MA

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